



Erasmus+



3DIPhE
Three Dimensions of Inquiry
in Physics Education

FACILITATE
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**BUILDING
PROFESSIONAL
LEARNING
COMMUNITIES**

Guide, workbook and tools

Wim Peeters

3

Volume 3: Building Professional Learning Communities

Guide, workbook and tools

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3DIPhE
Three Dimensions of Inquiry
in Physics Education

ABOUT THE PROJECT:

The ERASMUS + Project KA2 2017-1-SI01-KA201-035523 Three Dimensions of Inquiry in Physics Education (2017-2020) focused on commonalities and differences between inquiries at three different levels and the final results are comprised in an e-book in four volumes.

These dimensions are.

- Inquiry by students who use the inquiry-based learning approach to learning physics;
- Practitioner inquiry of teachers inquiring the processes in their classrooms;
- Inquiring processes in collaborative professional learning communities of teachers; and in addition
- Inquiring and evaluating all processes in the project using educational design research.

The project actively involved seven partners from four different countries (Slovenia, Belgium, Ireland, Poland), more than one hundred teachers from all partner countries and indirectly more than one thousand students taught by these teachers. The acquired knowledge was shared with several teachers who were not involved in the project and we hope that they will benefit from the presentation of our results in these volumes.

Mojca Čepič, the project leader

PREFACE

This is VOLUME 3 of the e-book of outputs of the 3DIPhE project; it has three building PARTS: the Guide for coaching, the Course Workbook for future facilitators and the appendix.

The 3DIPhE Erasmus+ project has 3 other e-book volumes, closely connected to the outputs.

- [VOLUME 1](#) provides Examples of Best Practices of Inquiry Based Learning,
- [VOLUME 2](#) deals with Practitioners Inquiry of teachers using the Inquiry Base Learning method in sciences, and
- [VOLUME 4](#) explains the Educational Design Research which was carried out on this project and its results.

The target public for Volume 3 are future facilitators of professional learning community of teachers. They get a step by step practical plan for facilitating a group through a series of 10 workshops of workshops. It starts with basic concepts and theory, followed by an extended description of goals for the coach, goals for the teachers and activities during each of the 10 workshops, in view of building a professional learning community of teachers who carry out a practitioner inquiry.

This is a guide for future facilitators of Professional Learning Communities of teachers, doing a Practitioners Inquiry. It also helps him to carry his own Practitioners Inquiry as a coach.

The course workbook is meant for participants to a one week course to become a facilitator of a learning community of teachers. This course workbook contains the building blocks of the guide, but digs deeper into the role of the coach, and provides a lot of experiences partners of 3DIPhE share. The course workbook also has a small appendix, but only with materials and information directly related to the course, and the role as a coach.

A glossary explains terms and abbreviations.

These text boxes give suggestions for the reader.

The extended appendix contains all protocols, information texts and other tools necessary to run the professional learning community as described in the guide and/or to run the course. In both guide and course workbook links to appendix items are made. These links make sure the initial text can be read in a smooth and targeted way.

Hints for the reader, the future user

- Read this Volume 3 in several steps
- Read the Guide first skipping the recommended workshop schemes and only the backbone of all workshops.
- Do not read all details at once.
- Do not click on links the first time.
- The links are a service in case the reader is prepared to dig deeper.
- Keep Volumes 1, 2 and 4 nearby. They provide useful additional information.
- Read the Workbook later: it has basically to same information, but presented from a different point of view. Read it only if you are prepared to elaborate the subject in depth.
- Read the tools of the Appendix as they are referred to. A systematic reading is not opportune and can lead to confusion.

This book is not a novel. A lot of information is presented very densely. Please read it step by step, maybe workshop by workshop or in phases to avoid information saturation and demotivation.

GLOSSARY

This refers to the glossary of definitions for the purposes and context of the 3DIPhE project.

Title	Description
Professional Learning Community	A professional learning community is considered to be a group of teachers and/or educators working together in a supportive, collaborative and positive environment. It is characterised by a shared vision, responsibility and values, and equitable participation.
Practitioner Inquiry	Practitioner Inquiry refers to the professional learning of coaches, teachers/educators who are engaged in a planned study on their practice leading to recommendations enabling evidence informed changes
Inquiry Based Learning	An active learning method in which students, in order to develop knowledge or find solutions (e.g. to discover trends, measure quantities of objects or quantities related to phenomena, find out the limits etc.), follow a scientific method used by researchers in science studies. IBL emphasizes the students' role in the learning process in which they are encouraged to explore the scientific issues, ask questions, and share ideas. Instead of memorizing facts and rules students discover them by doing. The teachers' role is to support students in their learning process, and not to instruct them.
Educational Design Research	Educational Design Research (EDR) is an iterative process where learning is systematically studied in the context in which it happens. The EDR process allows researchers and educators (often the user of EDR acts as both) to design, develop and evaluate educational programmes and interventions. By systematically studying this development, the EDR process can generate knowledge and theory relevant to the educational settings in which it is used.
Cycle	A clearly defined phase of the project in the context of the EDR Framework.
Iteration	This refers to the implementations of the PLCC and PLCT courses during the 3DIPhE project. These happened during Cycle 3 and Cycle 4 of the EDR framework.
Partner	Partner institution or its representative that is officially involved in the project.
Coach	Individual who designs, organises and guides activities in professional learning communities.
Facilitator	Individual who facilitates an activity or protocol as part of a workshop. A facilitator can be a coach or teacher in a workshop.
Participant	Individual attending an event e.g. course, conference, meeting,... This can refer to partners, teachers, future 3DIPhE coaches or external stakeholders
Teacher	In-service teacher who practices in a formal school setting
Student	Child, aged 10-18, in a formal school setting
Course	A coherent set of workshops aimed at a targeted learning process for participants
Workshop	A single meeting of a course with clearly defined goals.

Tool	A specific teaching and learning material used by coaches and teachers
Activity	A general noun for a part of a workshop where some action takes place, e.g. following a protocol, group discussion, watching an instructional video, etc. An activity is more general than protocol.
Protocol	A set of instructions, used during a workshop, with clearly defined goal(s), that has a strict order of actions and timing of those actions.
Worksheet	A learning support material e.g. used by participants of workshops or students in a classroom.
IBL Unit	A collection of inquiry based learning activities centred around a theme, topic or concept.
Information sheet	Additional background information to support an activity.
Course Guide	A guide book for coaches that details the structure, activities and rationale for planning and implementing a course.
Course Workbook	A complete collection of all teaching and learning materials that is used by participants of a course.
Inquiry	<p>Inquiry (IBL): In the context of Inquiry Based Learning, inquiry refers broadly to the activities that students carry out in the classroom.</p> <p>Inquiry (PI): In the context of Practitioner Inquiry, inquiry refers to the planned study that coaches, teachers/educators carry out in the context of their own practice.</p>

Table of Acronyms

Professional Learning Community	PLC
Professional Learning Community of Teachers	PLCT
Professional Learning Community of Coaches	PLCC
Practitioner Inquiry carried out by a teacher	PIT
Inquiry Based Learning	IBL
Education Design Research	EDR
University of Ljubljana, Faculty of Education, <i>Slovenia</i>	UL
Jagiellonian University in Kraków, <i>Poland</i>	UJ
Dublin City University, <i>Ireland</i>	DCU
Catholic Education Flanders – vzw VSKO, <i>Belgium</i>	CEF
Artevelde University College, <i>Belgium</i>	AHS
UC Limburg, <i>Belgium</i>	UCLL
National Education Institute, <i>Slovenia</i>	NEI

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PART A: THE GUIDE

THEORY

Coaching a professional learning community of teachers doing a practitioners inquiry

CHAPTER 1

How to establish a PLC?

CHAPTER 2

How to organize a first workshop with a PLC?

CHAPTER 3

How to lead the PLC towards a practitioner inquiry?

“CHAPTER 4”

“How to deepen the insights of a PLC in view of their PI?”

“CHAPTER 5”

“How to lead the PLC to a fruitful and satisfying end of the PI cycle?”

“CHAPTER 6”

“Presentation of the results of the PIs of the teachers”

Evidence-informed Coaching of Professional Learning Communities

The Guide

A step by step approach on coaching PLCs and monitoring the learning of teachers at the same time



THEORY

Coaching a professional learning community of teachers doing a practitioners inquiry

The vocabulary of 3DIPhE

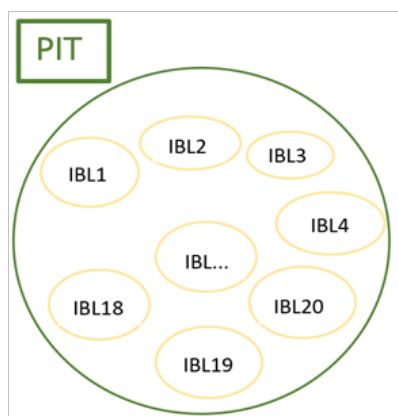


Figure 1: Learners in a class doing IBL, the teacher monitors this process by doing a practitioner Inquiry (PIT)

In the Erasmus+ project 3DIPhE (Three Dimensions of Inquiry in Physics Education) the main goal is to enhance inquiry based learning by students and teachers and facilitators. It provides an e-book with 4 volumes, all connected and intertwined. [Volume 1](#) of the e-book of 3DIPhE focuses on the inquiry based learning (IBL) of the students (IBL1, IBL2, ...). In Figure 1, inside the circle, the yellow ovals represent students doing IBL. The facilitators, the teachers, also need to facilitate in an evidence-informed way: the evidence is collected via a Practitioners Inquiry by the Teacher (PIT). [Volume 2](#) of the e-book explains and shows what we can learn from 3DIPhE about PIT.

In this introduction we clarify and launch a common specialist language, including abbreviations. The GLOSSARY gives an overview.

Figure 2 illustrates the key elements we deal with in Volume 3: we focus on strategies for coaching a (professional) learning community (PLC) of teachers (PLCT) learning through inquiry how to improve their practice by doing a practitioners inquiry (PIT – represented by the blue circles within their PLCT). This facilitator (we will sometimes use the word “facilitator”) also needs to do this in an evidence-informed way, also by doing an inquiry on his practice as coach, which leads to a PIC (Practitioner Inquiry of the Coach).

Finally, the project also did academic research on the results of the learning of teachers and partners, in their role as facilitators. The description and outcomes of this Educational Design Research (EDR) is available in [Volume 4](#).

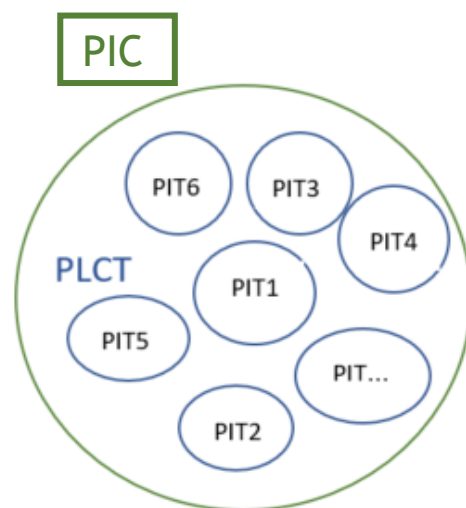


Figure 2: A PLCT composed of several teachers, each doing a PI (PIT). The coach monitors this process by doing a PI (PIC).

4 Volumes of an e-book contain a lot of useful information gathered during the 3 DIPhE project, including examples and all learning during the project

Evidence-informed learning of students: practitioners inquiry

Visible Learning, the title J. Hattie gave to his movement for better education, has many very powerful insights. One of them is working evidence-based. In education everything is about learning. But a “forgotten” interpretation here is that also staff should have the attitude of learning, heads, coordinators, people in administration, cleaning personnel and of course teachers included. All their activities aim at the heart of a school: it’s students. Whilst the target of the students is to study, the target of the teachers is to understand better the way their practice can enhance the learning of the students. Their inquiry is about their profession, their practice, their daily work with students. This of course is valid for all courses and disciplines.

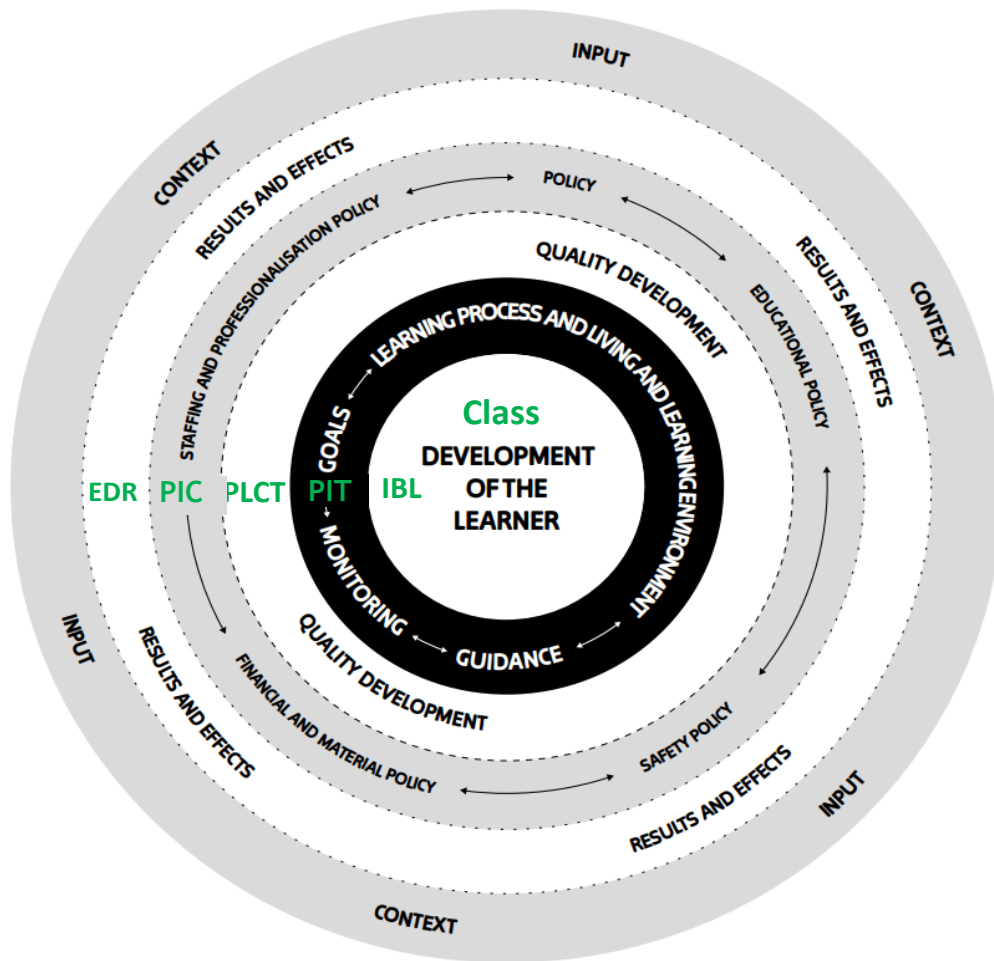


Figure 3 The Flemish reference framework for Quality in Education scheme related to the 3DIPhE project pillars.

The Flemish educational system recently started working along a research based “[The reference framework for Quality in Education](#)” (fig. p. 20) of which the principles are illustrated perfectly in the figure: at the centre, the framework puts the development of the student, in 3DIPhE we focus on a class doing IBL in science, but in principle it can be any activity. The inner circle is closely embraced by the nearest by circle (black) dealing with follow-up, guidance, goals, the learning process and life- and learning environment. This second circle is the circle where the key players are teachers and other personnel directly engaged with students’ daily activities at school. This is where the PI of the teachers play a crucial role. The next circle handles with quality

development. Reading its content learns us that internal collaboration is one of the standards the framework promotes, this is the focus on PLCT, then the ring of school policy, educational leadership, professional development strategies, where both PI of the facilitators and PLCT suit best. Finally, the EDR of 3DIPhE fits perfectly in the “Results and Effects” ring. Since the Reference Framework is based on a lot of academic research, and given that the basic concepts of 3DIPhE follow this framework nicely, we can easily state that 3DIPhE will contribute to the Quality of Education. In this book we aim at the interplay between the circle of teachers, the quality development circle and the school policy and professional development circle. Of course, all in view of development of the student at the centre.

Coming back to J. Hattie, the word “Visible” is also of uttermost importance. The visibility is not only expressed in numbers and percentages at the end of the school year, but, mainly during the process, also serves to motivate

the students in their ongoing learning. It should make teachers reflect about the effect of their teaching methods and materials. One makes the learning visible through collecting data or evidence of the learning. In order to have a basic reliability of the data, teachers should collect them in an intentional, planned and structured way.

The teachers look for strategies to improve the learning of students in the field of inquiry in sciences or other disciplines, of course on the students' level.

Like students during their inquiry, also teachers should collect data to provide evidence for their improved practice. Moreover, the teachers should do this continuously (cyclic) and systematically (according to an inquiry plan). This activity leads to a lot of learning of the teachers, this is their practitioner inquiry.

This book is not a novel. A lot of information is presented very densely. Please read it step by step, maybe workshop by workshop or in phases to avoid information saturation and demotivation.

Collaborative learning of teachers

Research provides a lot of evidence that this process of improvement of students learning has most impact if it is done collaboratively. From J. Hattie's "[252 Influences And Effect Sizes Related To Student Achievement](#)", the newly studied influence "Collective teacher efficacy" in 2017 came in as number 1. The pursuit to become a better teacher is a lot more interesting, more motivating, richer, more sustainable and more efficient if this takes place in a group of peers: other teachers, colleagues that share this ambition. If in a given context a group of teachers have this insight, they can become a professional learning community (PLC). Professional learning communities are defined by Hord (1997) as: "[...] a place where teachers inquire together into how to improve their practices in areas of importance to them, and then implement what they learned to make it happen." So, sharing the results with the students and their peers (colleagues, other teachers) adds value to the inquiry. More proof for this point of view can be found in reading the framework for digital competences of educators (DigicompEdu, (2)). At page 19 we see the competence for professional engagement includes professional collaboration, reflective practice and (digital) continuous professional development. Also in "The Entrepreneurship competence Framework" (Entrecomp) we read at page 15 that the sub competence "Working with others" includes "Work together and co-operate with others to develop ideas and turn them into action", "Network" and the sub competence "Learning through experience" means "Use any initiative for value creation as a learning opportunity", "Learn with others,

Professional learning preferably takes place in a group: this is a professional learning community, a PLC. A PLC of teachers is a PLCT, a PLC of facilitators is a PLCC.

including peers and mentors", "Reflect and learn from both success and failure (your own and other people's)". All this leads to forming groups of teachers in their learning process, the professional learning communities (PLCs). Given the 3DIPhE project and its positive experiences with intra school teams, inter school teams and the exchange on the international level, we seem to discover the trend that there are no limits on collaboration via PLCT's. Conclusion: collaborative learning of teachers is an important competence.

Other elements that support optimizing educators' practice are: the use of (interpretations of) academic educational research, a school context in which the head creates an environment in which the teachers can join this process, allows collaboration with teachers from other schools and even other countries, and the presence of an external person that guide the teachers in the group: the leader, the guide, the coach or the facilitator of the PLC.

The role of coach or facilitator is crucial

An extremely important competence of facilitators is to create a “culture of trust”: to make sure teachers feel safe enough to talk about their own practice, what happens in the class, what they do and what the students do: to their colleagues of the PLC they are an open book. Trust is necessary.

The Linpilcare framework “[Thinking through practice](#)” says (p.16): “Building trust takes time and requires special attention. Teachers must feel confident enough to talk openly about their own practice. Since many teachers are used to work alone in their classrooms most of the time, opening up their practice to colleagues is not part of daily routines.”

Facilitators should implement a “culture of collaboration” too. Their strategy, their approach should permanently keep teachers on this track. The collaboration should not be limited to the workshops of the PLC

itself, but also continue during the time in between workshops. Online platforms, social media groups, the cloud, are technical tools, but also establishing a system of buddies can improve ongoing collaboration. It is important for keeping the motivation that members remain connected to the group all the time, that there always is a possibility to contact one another in case an issue pops up. Another logic key element is the high level of responsibility and engagement asked by the facilitator from all the members of the PLC. Members should co-decide on the process of the workshop and the outcomes: the timing, the presentations, the locations, etc. . A facilitator should strengthen following attitudes of teachers working in PLCs:

We want to promote the idea of having a facilitator, taking responsibility for his own learning as well the learning of a peer group of teachers.

His task is crucial and very demanding. For that a facilitator needs to have a lot of competences.

- Have real conversations (N. Dana in “*The Reflective Educator’s Guide to Professional Development*.”): A real conversation is about the authentic problems of teachers and about improving student learning. A real conversation is on professional matters and is aimed at digging deeper into a topic to gain a thorough understanding of the matter at hand. The use of ‘protocols’ aims at promoting real conversations.
- Make teachers work together in PLCs, enhancing their understanding of their own profession and of their students’ learning. All members of the PLC should help each other to learn as much as possible.
- Make sure teachers aware that a lot of data already are available at schools (exam results, choices done in the past, interests of students, results of former students in their further studies). Schools and teachers do collect a lot of ‘data’ as part of daily practice. Student work, for instance, can be considered data about their performance. These data can be really helpful for teachers to gain insights in their teaching practice and triggering ideas to improve it. These data can trigger a PI. On the other hand, a teacher doing a specific PI could use these data to analyse. The presence of the data can motivate teachers to use those in a meaningful way.

Finally, making a community choose one of the many types of PLCs (shared inquiry PLCs, intersecting inquiry PLCs, parallel inquiry PLCs), forces the facilitator to stick to the original choice and to keep the PLC on the chosen track.

A crucial role is very demanding

The facilitator's tasks, as explained already before, can look very complex, but it becomes even more complicated. Within 3DIPhE we formulated even more competences of the facilitator that are needed to some extent at least:

- The facilitator must have an open mind and even prepared to stretch some ideas
- The facilitator has a leading role: the PLC facilitator is a central person in the community. S/he plans and organises the workshop. An effective facilitator will be able to use different styles when needed and has the capacity adapt and engage all to be a real leader. Some of the characteristics of such a leader: (s)he can inspire the PLC members, (s)he can motivate, (s)he has a vision on the effectiveness of working in PLCs (the members progress continuously in their learning and have a satisfying result at the end of the cycle), (s)he can take decisions, s/he can discuss, argue, negotiate, find solutions, compromise between members of the PLC, etc.
- The facilitator is engaged on the content and on the process.
- Facilitators should have good social skills like communication, creativity, positive thinking, high expectations, she/he should feel and pick up the team spirit within the PLC and act accordingly, supportive, and at the same time truthful, providing quality feedback even when things do not evolve as desired, emphatic, paying attention to all members, remain focused on the goals of the group, and many more.
- One of the main competences of the facilitator in a PLC is to make a planning for the whole inquiry cycle for e.g. a whole school year: what is the main focus of the different workshops during a year. This structures basic progress of the process. Connected to this is structuring the time during the PLC workshops and important element. To manage a PLC workshop he can use his leadership capacity and using appropriate protocols.
- The facilitator cannot have a rigid mind: flexibility is key: in schemes, in timing, in goals, in teachers approach; at the same time this flexibility should never lead to negative effects.
- The PLC coach or facilitator should be aware that he needs to have several toolkits to guide all processes in the PLC, such as
 - a repository of examples of best practices,
 - a number of tools that shape a group of teachers into a real PLC,
 - a toolkit to guide the teachers through all steps of their practitioner inquiry, as well as offering a different kinds of inquiries like Lesson Study or prototyping as a step up to a PI according to the model of N.Dana (see [Volume 2](#))
 - A minimum of knowledge on crucial academic research in the general educational field, but also in the discipline specific research. The references are a good hint.

All aspects of the facilitator's demanding task are enriched by learning experiences of the partners of 3DIPhE during the project.

The facilitator can stay aside, external to the group, but still closely connected via his expertise, his motivation to make the group learn- very much like a facilitator in a team sport. If the PLC is in one school, he can be part of the group, a primus inter pares, like a captain in a team. This depends on the context. There is no preference, the key element is that it must be doable.

The facilitator's practice is facilitating a PLC. It is almost self-evident that he also carries out a PI, on this activity, to enhance the results of his PLC, now and in the future. We will call this a PIC.

And last but not least: the facilitator is also a practitioner inquirer himself! Like students learn through inquiry, teachers carry out their inquiry, likewise the facilitator should embrace the teach what you preach principle: he should also carry out his own inquiry to improve his practice, to structure his learning in facilitating a PLC. At the same time he monitors the learning of the teachers. This PI, used as a kind of formative assessment of his own coaching, is essential for the quality of the PLC work. The coach or facilitator, in parallel, but not with the same timing, follows the same PI strategy as the members of the PLC.

Further structure of this guide.

In the following chapters we provide a step by step schedule, overview of building and maintaining a PLC of educators, in most cases teachers probably. However, should a school decide to set up a PLC for principles or heads of departments, books on this issue are published by for example Nancy Fichtman Dana: “Leading With Passion and Knowledge” (The Principal as Action Researcher).

This book guides the user through a complete cycle of coaching a PLC. Apart from the preparations, ten workshops with the PLC have been taken as a typical setting that guarantees a minimum of success. In reality, the facilitator needs to be prepared to interpret that timing in a flexible way. The guide provides for each phase, each step, each workshop, the why (goals), how (methods, tools and strategies), the what (results) and the when (timing).

The green text boxes are quotes of positive experiences of 3DiPhE project partners. They help, enrich, motivate and even argue sometimes the content.

The information in this guide is structured chronologically, along a recommended scheme of preparatory work followed by 5 days of workshops. However, the user should feel free to interpret these guidelines in a flexible way.

In this guide we also follow two strands at the same time: the main strand is a guide for facilitating, coaching a PLC in many different aspects. The second strand is the facilitator as an inquirer, the facilitator, carrying out a practitioner inquiry to continuously improve his practice. The second strand relies partially on [Volume 2](#) of the 3DiPhE e-book.

Disclaimer:
a learning process is not predictable and is non-linear. Guiding it is even more complex. We provide guidelines, with a certain backbone for a cycle of a PLC. We will indicate alternatives wherever possible. These guidelines are built upon research, experts’ opinions and the experiences/ learning/inquiries of the 3DiPhE partnership.

Chapter 1 deals with exploring the context in which the facilitator will work. Discover the needs and motivation in a school environment.

Chapters 2-6 contain two half day workshops. In some cases they form a one day session. Some teachers prefer this approach, losing less travel time. Sometimes this day took place on a Saturday, avoiding interference with normal school timing. In **Chapter 2** the very sensitive phase of starting up a PLC, in particular the first workshop is described. Some study and thinking is necessary, getting to know tools and materials and protocols. 3 DiPhE is a spin off project of the European Erasmus+ project Linpilcare. Many basic ideas are taken from the common conceptual framework of Linpilcare.

Chapter 3 is devoted to starting PIs with the teachers: how to motivate teachers, and how to lead them to a PI that improves their practice.

Then, in **Chapter 4** the facilitator will make it clear, once again, that collaborating in a PLC is an added value. This guide will help the facilitator to make choices to enhance the teachers’ insights on collaborative work.

Chapter 5 supports the facilitator during a difficult period, in which the teachers are actually carrying out their PI, more or less independently and a bit on their own. There are not so many PLC workshops in that time period.

Chapter 6 however is helping the facilitator in finalizing the cycle, harvesting the results, and giving a boom to the learning of the teachers.

Each chapter has an introductory text.

There are 3 kinds of tables/boxes:

Goals, focuses and activities for future facilitators of PLCTs. This includes his own PIC.

- Activities are developed to give future facilitators experiences, skills and insights in their role as coach.
- 2nd focus: The PIC of the facilitators, also needed in view of the principles of the 3DIPhE project.

Goals for the teachers in the future PLCT doing PI

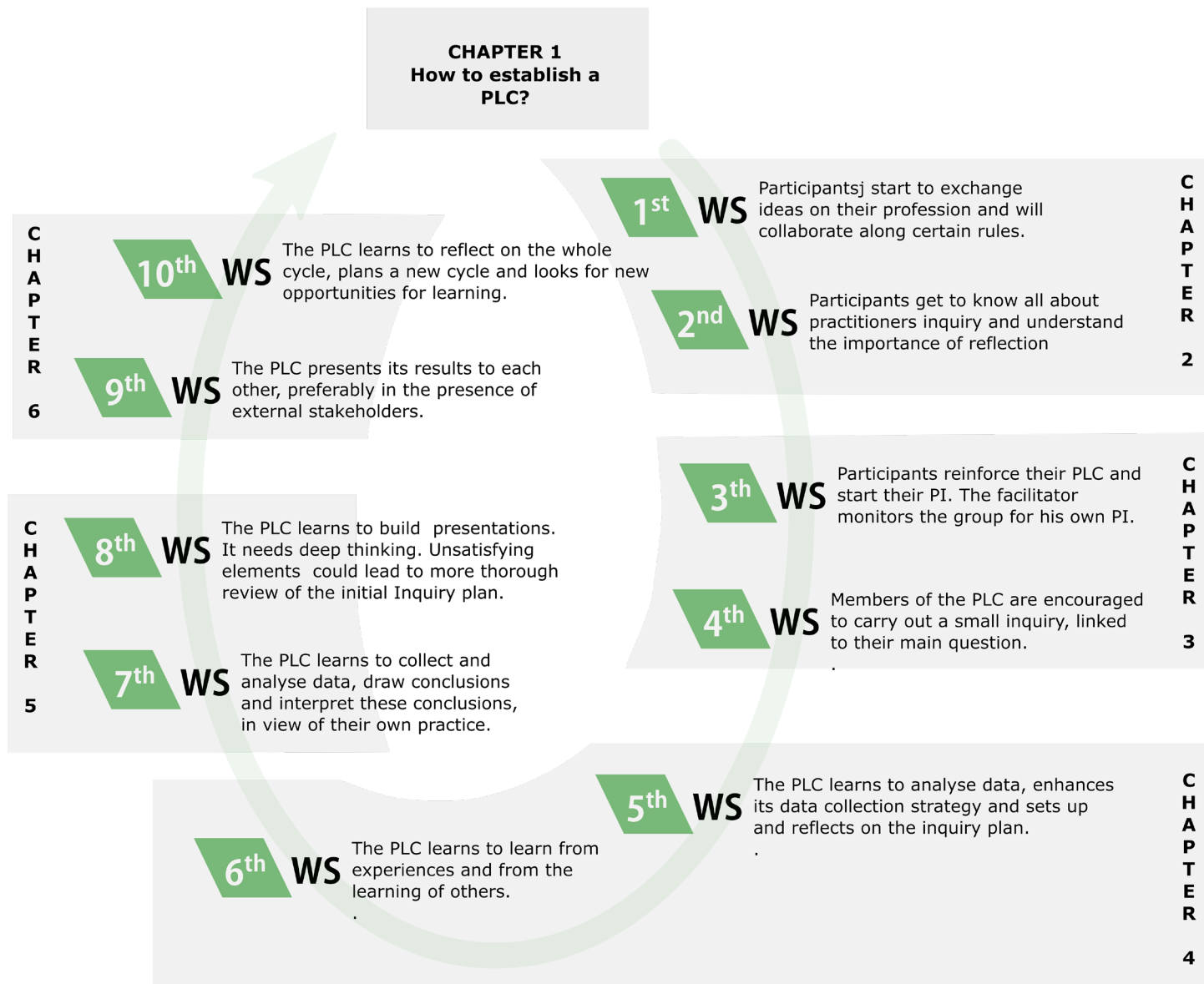
- Lists goals and activities that future facilitators could implement in their future PLCTs.
- These goals and activities for the teachers of the PLC are indicative, suggestions based on experiences of tutors in 3DIPhE. A lot more information on doing a PI in IBL is provided in [Volume 2](#) of this e-book.

Number of the workshop

Recommended
scheme of the
workshop.

List of structured activities aiming at coaching teachers in their PLC doing a PI, is some cases on IBL.

The general structure of the guide



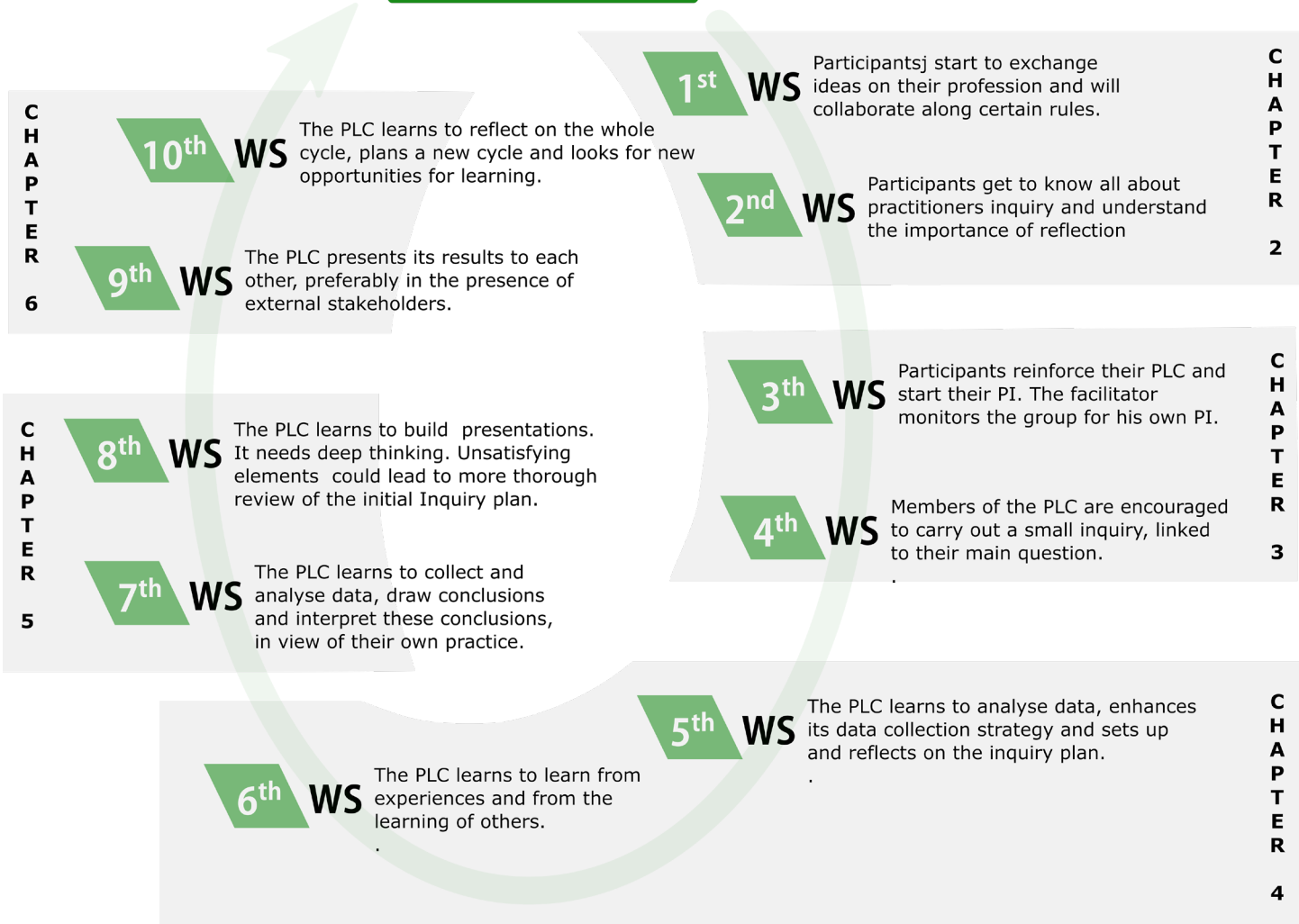
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CHAPTER 1

How to establish a PLC?

CHAPTER 1 How to establish a PLC?



The facilitator's initial task: to prepare for building a PLC

- Analysis of need for a PLC in a given context and subsequent building a PLC. Launch PLC as a professional learning strategy
- Discover your motivations to facilitate a PLC for your context
- Familiarizing with coaching a PLC
- Discover different kinds of PLCs
- Read case studies to get inspired and motivated to facilitate a PLCT. This reading is a strong way of professional learning, usable in practice in the near future.

Reasons for updating professional practice...

In education in general there is an ongoing need for professional learning, due to changes that always occur: new curricula, new societal trends, changing policy of the ministry, policy of school, changing profiles of students, etc. Mostly, schools develop plans for professional development, in general aiming at individual or whole staff learning. The way a PLC is formed is not really defined: there are an infinite number of ways teachers sharing the same goals can group: teaching in the same school, a local network, meeting during a conference, as a result of a school priority plan, sharing the same interests and/or disciplines, or... taking part in a European project.

There are many opportunities to build a PLC, in many contexts, since the needs for change, especially in education, will never end.

... in a PLC. Starting a PLC takes some time

Outside schools, across several, during and after teacher workshops, groups can be formed to elaborate the learning during the training, and to implement it in daily practice. A PLC helps to create ideas and strategies for implementation that work, because they were subject to an inquiry, or maybe to reject certain ways, based on conclusions of another PIT of another member of the PLC.

In case of student-teachers, the same is valid. Learning through inquiry is very powerful, it can be very flexible in relation to subjects, and at the same time powerful since it is experienced based and also evidence informed.

Launching the idea of collective learning in smaller groups is a smart thing to do. Look at the arguments stated earlier: social aspect, enhanced learning, mutual support, strong relation with context of the school, etc. Within schools such groups can be discipline groups, project groups, groups of teachers sharing the same issue for learning. There are no real a priori conditions for a successful PLC, apart from the motivation and engagement of the members of the group. Preferably not more than 10 members take part. (7 causes some practical difficulties: the whole group is too large to consider as 1 group, and a group of 3 and another of 4 is not advisable because timing can differ a lot). The next step is to agree on a future facilitator to lead a PLC. But, even before doing any preparatory work, future facilitators or facilitators need to reflect carefully on their role, their personal reasons and their motivation.

A PLC needs a motivated facilitator who carefully builds a new PLC.

A future facilitator should be ready for the upcoming task. First of all, his motivation should be top. Several tools exist to self-assess this: for example this Protocol: Passions for being a facilitator of a PLC(1). It is just a tool, to be handled with some reluctance and mildness. The tools always, at the same time, give an idea on the task itself too.

Other self-reflection tool for the facilitator:
Protocol: passions for being a coach of a PLC(2).

Starting from the assumption that you, the future facilitator volunteered to become facilitator of a PLCT, it might be advisable to do some self-reflection to get a better view on your motivation to become a facilitator. How crucial this role is and how demanding is explained in the introduction. Look at a series of practical advice,

recommendations and experiences the 3DIPhE partnership collected, that might help to understand better what you are up to in coaching a PLC in the near future. Fast-read this Volume. The very first step is to consider the point of view of the head of school: are resources such as people (participants), locations, time, available even before the start-up process?

To build a PLC, the head of school should be involved, even engaged, from the very beginning. His support makes a big difference!

"I am -even at this early stage- very convinced that the intake talk-approach is very valuable. It gave me the freedom to explain to each teacher in his/her own terms what the purpose of the project was, and they had the option to opt-out before the start in that way (without disturbing the workflow).

While building a PLC, the new facilitator reads back ground information and makes sure he has several interesting elements to offer to the future PLC member.

During initial communication with (peer) teachers, school heads, and other stakeholders, make it clear that a PLC is not a one shot activity. First of all, it is a year-long program with all together maybe 20 hours of contact or more, and, to make it really work, it should be cyclic, year by year or even in less time periods. In different cycles, different issues and subjects can be tackled, but the methods remain the same, gaining strength and efficiency over the cycles.

Anticipating to a long term vision, if starting up the idea of PLCs doing PI, it is best to engage a group of volunteers first, make sure they keep their motivation and end up in positive learning results, not only of the teachers but more importantly the results of the students. It is important to stay at the safe side, and to turn this initiative into a success. Goals for the teachers in the future PLCT are mentioned in the different chapters below.

Several kinds of PLCs can be formed, based on how they will collaborate in doing their practitioner inquiry. Look at this material for an overview. The facilitator should bear them in mind in discussions and workshops. He could also use it in an active way to inform the PLC about possible options, giving them additional reasons to get on board.

If a group of teachers confirms they want to collaborate in a PLC, and it is decided, then it is a smart idea to share a survey with them. The future member of a PLCT fills out a survey with his pre-knowledge, his motivation and needs. This gives the facilitator basic information on the group structure, the profiles of the teachers. It also delivers a message telling the teachers that they engaged in a professional learning path, that this initiative is taken really seriously, that there is a planning and a strategy behind. To a certain extent, it sets the scene for future collaboration. In the schedule given, this is done in the first session, but, as indicated, doing this in advance is perfectly ok.

Besides, communicating the existence of PLCs activities can trigger new groups of teachers to follow the same learning strategy later on.

Starting a PLC needs a lot of preparatory work.

If the facilitator was able to build a PLC, make practical arrangements, and agree on some rules for communication. He establishes arrangements with the group and the head, and then it is time to dig deeper into this new task. Partners of 3DIPhE have written 6 case studies that describe in depth how it was, working with a PLCT. (see [Volume 4](#)). Each case study is different and particular in many aspects. For a future facilitator an enrichment, since the case studies share a lot of experiences. Reading these case studies special attention should be given to the questions “What did the facilitator of this PLCT learn during the collaboration with the teachers?” and “What evidence did the facilitator provide for the learning of the teachers?”. Every future facilitator should continuously have these two questions in mind during reading, and afterwards, during all workshops with his PLCT. It is especially advisable to also read the case study on a PLCC in Volume 4. It reveals the way of thinking of facilitators, and the actions they undertake to make their PLCT work and collaborate in the most effective way. It also can be considered as an alternative for the recommended version that is elaborated in this book. Look at it as proof for flexibility that facilitators need to have, and in this sense reading this will give the future facilitator a lot more background and confidence prior to starting a PLCT.

3DIPhE has written case studies that describe in detail and very realistic their experiences with working with PLCTs. As prior knowledge they can be of great value for the future coach.

These goals are valid for every workshop:

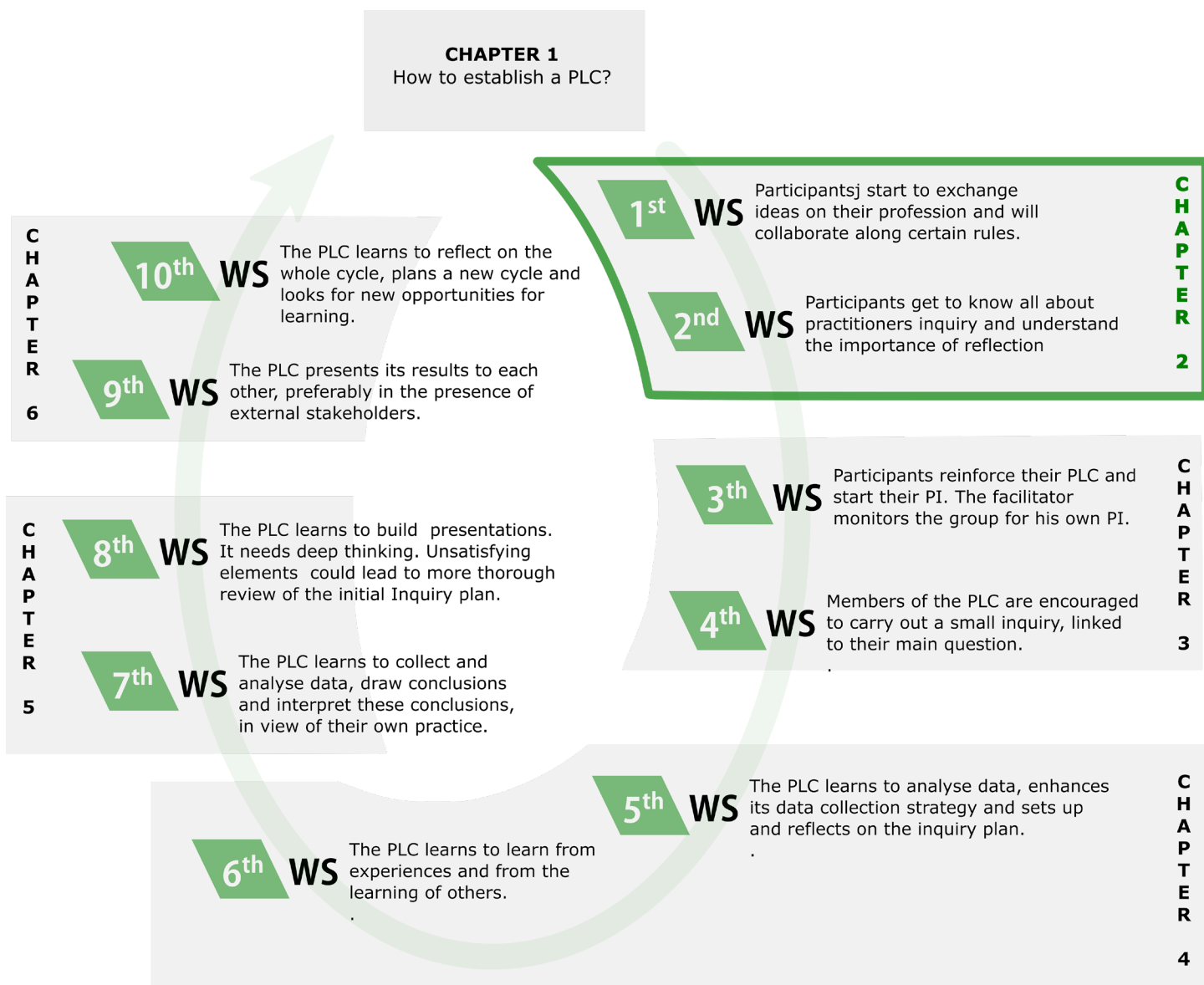
PLC Development preparations:

Well prepared is half done. For leading a PLCT and for leading a PLCC.

- Each workshop should contain among others, the following elements: a PLC activity (focus on the group), a PI activity (focus on each member separately) and an example of best practice (motivation).
- Develop an overall scheme of workshops with the PLC
- Consider goals of each workshop (after study of reflection of yourself and of PLC members)
- Consider, study and select different types of protocols, chronology
- Establish flexible communication channels in the PLC, among them tools for reflection
- Organize practicalities (location, materials, dates, participants, ICT tools)
- Make PLCT members reflect, while working, but also in a structured way: 2 levels: personal level and the level of the whole PLCT, considered feedback for the facilitator

CHAPTER 2

How to organize a first workshop with a PLC?



The 1st Workshop

Where the PLC members start to exchange ideas on their profession and agree to collaborate along certain rules.

PLC Development preparations

Well prepared is half done. For leading a PLCT and for leading a PLCC.

These goals are valid for every workshop

- Prepare the discussion on the draft version of an overall scheme of workshops with the PLC
- Discuss the goals for the first workshop, make sure you are aware of the why and how
- Establish a nice, positive atmosphere of learning
- Consider, study and select protocols that meet PLC members' expectations about collaborative learning with peers
- Gather and map pre-knowledge of the PLC members.
- Establish in dialogue concrete communication channels in the PLC, among them tools for reflection
- Organize in dialogue practicalities (location, materials, dates, PLC members, ICT tools) for next workshops

Half a day (3 preferably 4 hours) is the minimum time for a group workshop. Especially in the beginning time is needed for the members to get to know each other better, given the new context. This is equally valid for members that might know each other well already. The atmosphere should be relaxed, and even close to playful at some moments.

Of all workshops, the first is the most important. Meticulous preparation on content and practicalities, support materials, setup of the room and group forming is crucial. Careful consideration and study is of uttermost importance. Here trust and group feeling is being build.

The PLCT

- Gets an overview of the long term trainings workshops
- The members get to know each other and start collaborating in a professional but relaxed way
- The members learn about learning in a PLC
- The PLC agrees on a collaborative working method
- Members communicate their pre-knowledge (in one way or the other)
- PLC members understand how reflection can enhance their learning

The scheme of the workshop might look like this:

The 1st workshop

Recommended scheme of the workshop.

- PLC: Icebreaker Activity: Getting to know each other.
- PLC: Baseline questionnaire - Gathering PLC members' needs and expectations of the training and pre-knowledge. This could be in the form of a pre-survey
- PLC: Goals of the workshop, agenda, timing
- PLC: Pre-knowledge: Consensogram Activity
- PLC: Attributes of a PLC, leading to Ground rules (Norms and values) of a PLC.
- PLC: Practicalities: planning overview, means of communication, setting dates, , locations, sharing materials platform, report of the workshops, feedback tools, ... Using Google Drive or other platform in the cloud for sharing documents and writings...
- PLC: First reflection on this workshop. An introduction.

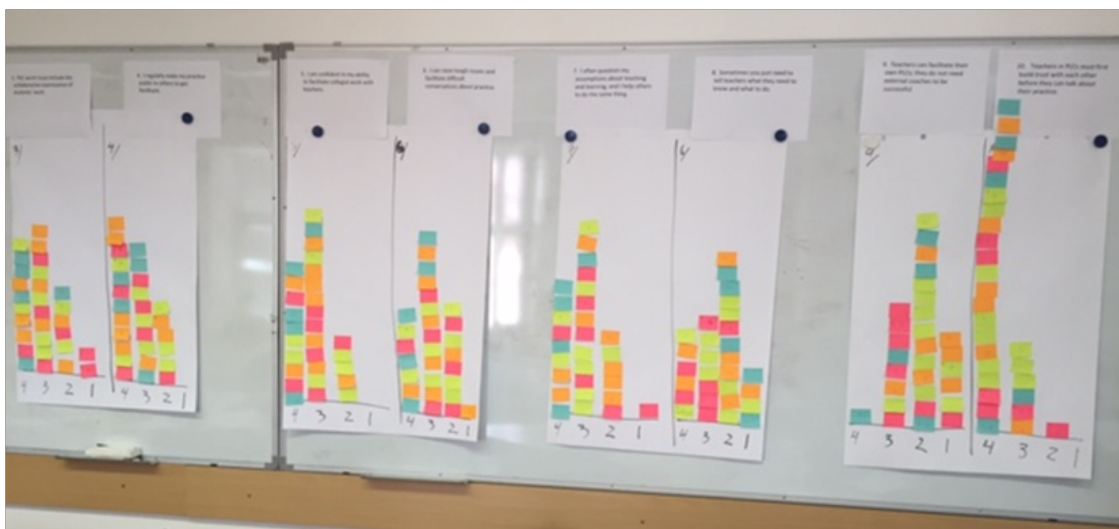
The icebreaker should be a nice first experience here. The protocols also help a lot, because they give rise to a lot of discussions and professional talking, as well as moving around the room in an active way. Badges with names help, and also the first hours to ask members to mention their name before taking the word.

For the facilitator knowing the pre-knowledge of the team is important. It can also be done beforehand, which is an advantage for the coach, as he can take this information into account preparing the first workshop. But... the Consensogram protocol, with well-chosen questions, can give rise to discussions on having a PLC, the value of collaboration, share opinions on PI and all kinds of thinking of people.

Other ice-breakers are available at the section on icebreakers in the appendix.

The consensogram needs good preparations. Posters, post-its and most importantly, questions that are relevant to the context. Enough questions but not too many, the equilibrium depends on the community.

Sidekick: Using the Consensogram protocol with post-it notes to indicate the distribution of answers along a horizontal axis is a very strong strategy in many ways: it gives an idea of how the group thinks about the questions asked (and the members now know of each other), questions can be tailored to the context, the group, the situation, and it can serve as a first exercise in data analysis too, distinguishing between observations and conclusions.



Picture 1 Consensogram: distribution of answers on questions asked

After the first phases of the protocol, an option is to go through the answers by asking 3 questions:

1. What do you see on the poster? (The analysis, a 12 year old can answer that)
2. How can you make a summary of what you see? This is the short version of the analysis. It is difficult not to insert, even unwillingly, your opinion.
3. Conclusions: interpretation and consequences of what the data tell you.

This last process takes at least an extra 30 min. for a group of 12-20 people. Timing should take that into account. The rewarding side of this approach is that the group immediately is fully in a learning mode, with deep professional discussions. And from these discussions, needs might arise, opinions given and plans made even. It also contributes to the group building. On top of that it raises the awareness on how to analyse data in a good way.

This strategy is ok if the members of the PLC know each other already, for example if they are from the same school. In this case attributes and norms and values will proceed more swiftly.

It is a good introduction to the Attributes protocol, and further to the Norms and values protocol. Both are closely linked and for time saving reasons, it is advisable to do them one after the other.

As the PLC members now understand somewhat where it is all about, they will support the need for good communication, and ways to exchange materials and tools.

An important learning from 3DIPhE, experienced in two independent cases is that of having buddies in the PLC. These are two persons that are prepared to collaborate more closely in the PI, solving small issues or discussing possibilities. This is important, in particular in time periods where members of the PLC do not see each other for a long time.

Most importantly, the facilitator should now present the reflection or feedback tool. Apart from their personal learning, taking own notes- remind PLC members of that!- for the coach, but also for the PLC as a group it is very important that honest and quality feedback is given at the end of the workshop. Doing a small reflection workshop, almost a training or warming up with the tool will give the PLCT members some confidence on the technical aspect, but also on the goals and value of this method. The facilitator should insist, informing them that it is crucial for a professional learning community.

Given GDPR, members should explicitly agree with forming groups on social media (Teams, Zoom, Duo, WhatsApp, Facebook, Skype, ...) But it can be a powerful tool to establish a collaborative group. Also, in this phase, make sure the facilitator, should get permission to contact members individually in case of urgent matters (cancellation of workshops, absent members that could need additional help, etc.).

After this, the scene is set: the members know each other, and they agree to collaborate in ways they agreed on.

It is advisable to start with a whole day, or even two whole days. The more complete the information they get right at the beginning, the sooner they can get started with their inquiry.

The scheme for the first workshop is very loaded. If a whole day is not feasible, take 4 hours for the first workshop.

Teachers seem to want opportunities to provide peer support for addressing each-others problems/wonderings

The coach makes sure the teachers of the PLCT have the proper attitude to collaborate and trust each other in order to learn as a professional.

It takes time before a group feels safe to share and be critical.

If the time available for teachers workshops as a group is limited, then the approach of pre-meetings with individual teachers may help to save time, especially if teachers are young.

The 2nd Workshop

Where the PLC members get to know what and why practitioners inquiry is important and understand the importance of reflection.

Looking at the second workshop, PI is the new subject for learning; the facilitator should be knowledgeable about the process of practitioners inquiry too. See [Volume 2](#).

Continuous reflection of the facilitator

- (Use first set of reflections to develop the second workshop : in case this is a separated workshop)
- Refine and elaborate collaboration
- Use the reflections of members to trigger a PIC
- Personal reflections as facilitator on workshops, at the beginning, during and after the workshop are important data too
- Familiarize with PI as a learning method for teachers and facilitators.
- Look at the goals for all workshops.
- ...

To engage even more in the coaching task, going through the presentation “ Politics of a PLC” provides an overview of background ideas, useful in this leadership role. It links closely to the different kinds of PLCs too.

Members of the PLCT understand the concept of a PI

- Familiarize with PI
- Understand the cyclic process
- Understand how a small inquiry can help finetune the PI
- Discuss the kind of PLC they want, based on their options and needs for a PI

Continuous reflection of all members of the PLCT

- PLCT members reflect on the personal level (their learning, their personal ideas)
- PLCT members reflect using a system in the cloud to gather reflections of all members to become a real learning community
- PLCT members express their needs
- Summarize all personal reflections at the end of a cycle to motivate for next cycle.

Recommended scheme of the workshop.

- If this is a separate moment:
 - Icebreaker
 - Conclusions of feedback/reflection after first workshop
 - Goals of the workshop
- What is PI, overview of the PI process question-data-analysis-conclusions- improved results of students-change of practice. In this context the idea of a mini-inquiry, a piloting, or a lesson study can be launched, as a support for the main inquiry. : link to [Volume 2](#).
- Introduction to PI: The gardener vs farmer protocol link to [Volume 2](#)
- What kind of PLCs exist? What does **this** PLC want?
- How to structure and plan your PI? The inquiry brief.
- Reflection: 2 kinds of reflection
 - members of the PLC reflect on the workshop: describe their own learning (taking personal notes), and give feedback to the facilitator (online feedback tool provided by the facilitator for example)
 - facilitators reflect on today's course elements and relate to how they would use when conducting their own PLC (must be written down - so you can tell them you used their input to adapt the course)

Teachers should have a clear idea on what a practitioners inquiry is, what it means, but also what it is not! The 3DIPhE project has elaborated an extended pillar on PI, an overview given in Volume 2.

Lessons learned are:

- It should improve the teachers practice, this means it should lead to better results for the students
- It must be limited and feasible in workload and time
- There must be evidence for the learning of the teacher
- The teacher is in charge and responsible for the whole process
- In 3DIPhE the teachers did their PI on inquiry based learning in physics/science. This is a specific focus. In general, PI can be done on every subject the teacher/educator chooses.

During the 2nd workshop teachers learn what a PI is and how a PI can provide evidence for better teaching/learning.

Ways to support professional learning are prototyping. These rather small inquiries have a set structure, can involve colleagues and students, and gathering data and drawing conclusions is crucial too, similar to PI. But it is shorter in time and leads to small results in a quicker way. During the 3DIPhE project some teachers, prior to starting their own inquiry, asked a few questions to their students to learn what the most urgent needs or ideas or opinions of students are. After an analysis of these data the teacher has a more clear view on what to do. This can be done as a pilot PI, a kind of warming up of what inquiry can be.

In general, a good advice is to encourage members of a PLC to carry out a small inquiry as a warming-up or a training, but also as a support for their main PI.

As a facilitator it has many advantages to support the idea of doing a small inquiry first. Practitioners will gain insight in what a PI is, how to formulate a question, which data gathering is opportune, how to analyse and draw conclusions, and it will help to focus better on the main inquiry. If some or several members would do this, then workshop 4 or 5 need revision. Giving those members the floor can be a big added value in many aspects. Since

it should be very small, the best is to agree to do this “experimental mini PI” before the next workshop. In this schedule we foresee this in workshop four, just in time to be able to draw conclusions prior to the start of the actual PI (see further).

Practitioner inquiry is one way of professional learning. This links to another source of knowledge, the academic research. To understand their mutual role and relationship the gardener vs farmer protocol is used.



When doing the gardener vs farmer protocol (practitioner vs research) inquiry it's important to note that participants background information will influence their perceptions of these elements. Consider this when facilitating

Picture 2 The Gardener versus farmer protocol: results after this activity

Its conclusion is that we need both, and that the teacher should consider himself also as an expert in education, of course mainly reflecting the local context, which is most relevant to the teacher.

As a starting point for his PI the teacher needs to reflect on his practice critically and select a topic he is keen on improving. It can be a difficulty, a weakness, but also an ambition, a goal. He can have his own inquiry, or agree with the whole PLC on a certain topic. This determines the kind of PLC the group wants to be. It depends heavily on the group itself, their context and their choices.

It is agreed upon that a PI is not just a small intermezzo of daily professional life, it is a planned, intentional and structured activity. To guide it, the inquiry brief should be helpful. Both for the teacher and for the facilitator following it step by step makes sure that some crucial elements in the process take place. Printing it on an A3 provides enough space for writing what is required and writing down own learnings.

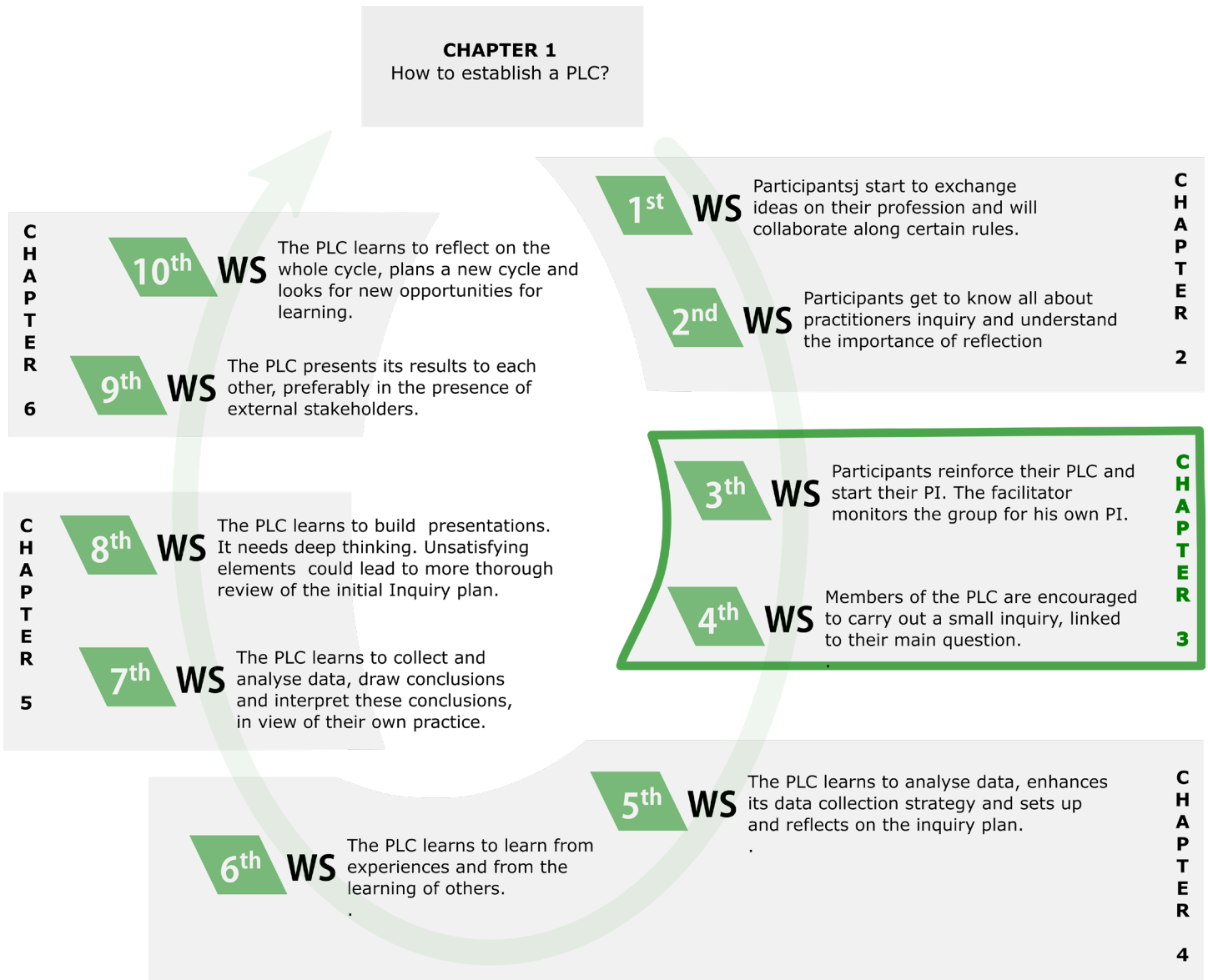
Finally: the reflection phase also needs a lot of attention. Sometimes lack of time endangers this phase. A facilitator however needs to make sure it happens. He builds and adapts the goals of the next workshop taking the feedback into account. It is a way of building trust with the PLC.

The PLCT members need to have the attitude to collaborate for improving their practice in an evidence informed way.

Apart from that, the facilitator should also fill out another reflection file, his own one, to gather ideas, to reflect, to self-assess and to write down useful information he got from the group and his own observations. Before each next workshop he should have a look at them, in order to, for example, pick up loose ends of previous workshops. Some of these personal notes can help him connect easier with PLC members of the group. Also, the reflection document is and should be a source, data, for the inquiry of the coach.

CHAPTER 3

How to lead the PLC towards a practitioner inquiry?



The 3rd Workshop

Where PLC members reinforce their PLC and start their PI while the facilitator monitors the group for his own PI.

Motivation as facilitator

Organise sustainable self- learning

- Exploring the problem space as coach: always use feedback and self-reflection
- Organise the workshop: goals, protocols, reflection
- Keep your passion for coaching: train in asking questions
- Discover the motivations of the PLCT in view of your task and maybe inquiry
-
- Discover PI as a professional learning tool, and discover a focus for your PI
- Formulate your draft inquiry question as a coach
- Optional: Find your Critical Friend
- Maintain the motivation of the PLC
- Reflect as facilitator on workshops, at the beginning, during and after the workshop

So far, the PLCT has its ground rules, they know each other a little bit. Still the facilitator needs to pay a lot of attention to improving the group atmosphere. A good way to do it, is to know all members' names by heart. This also helps building a trustful environment.

Along with the PLC members, the facilitator should keep in mind that he is also expected to formulate an inquiry question. He can follow the PLC members scheme in carrying it out. Finding a critical friend is helpful as support for all steps in the inquiry of the coach, unless the facilitator is member of a PLC himself. As inspiration, a list of possible inquiry questions of the coach is given in the appendix.

The PLCT members

Go out there and enhance teaching

- Get to know each other better, warming up, ice breaker, what did we learn the previous workshop
- Refine and elaborate collaboration
- Implement workshop plans
- Maintain the motivation of the PLC: learn to ask inquiry questions
- Are inspired by PIs of other PLCT facilitators.
- Keep the passion for the job, formulated in the inquiry question. Link passion with inquiry.
- Formulate a small inquiry question, with data easy to gather, and doable in a short time

Recommended scheme of the workshop.

- PLC: Review previous workshops - What did PLC members learn? What were the norms and values? What did the feedback tell us.
- PLC: Setting new or adapted goals for this workshop
- PLC: Icebreaker: Compass protocol (30 mins)
- PLC: using academic research to start a PI: 10 Mind frames of Hattie lead to ...
- PI: Initial Inquiry Question
- PI Litmus test on initial inquiry question (see [Volume 2](#))
- PI: Examples of PI, focus on questions, and also focus on help questions, secondary questions formulated prior to the actual research; one example of prototyping or preliminary inquiry.
- PI: formulate one simple question that you would consider helpful in view of your inquiry; interesting to know before you can really start your inquiry.
- *PLC: Optional: 2-level reflection (if only one workshop, not two consecutive workshops).*

While the first workshops were dedicated to building a PLC and to give more global information on protocols and the PI learning strategy, the next two workshops bring members of the PLC to the real start of their PI.

First the Compass protocol, to make members aware that learning differs quite a lot from person to person, and that one can expect a variety of profiles in a PLC. The insight that a group needs complementary profiles is very valuable, and enhances mutual respect and group feeling. So it is a very good group building activity.

During this half day the PLCT members get motivated to carry out their own PI, and give it a go!

The time anticipated in protocols as well as training schedules needs to be a bit flexible. We understand that time keeping in protocols has got its sense, but it cannot be rigid. If more time is needed e.g. for discussion, then it must be given.

Other tools to start up a wondering

- passion protocol for teachers (general)
- the 8 key aspects of IBL
- the Fibonacci self-assessment tool (IBL)
-

See more in [Volume 2](#).

It is very important for the whole process that a member of a PLC, or the whole PLC chooses a subject that is “strong” enough to make sure that the inquirer remains motivated, that it is feasible and that it leads to learning of both the teacher/member of staff and the student. In our format we choose the “10 Mind frames” protocol of J.Hattie. It is evidence based that all ten of them lead in one way or the other to better learning of students. At the same time, each mind frame is wide enough to be able to interpret it in such a way that it suits the needs of the inquirer. A mindset can be regarded as a field of inquiry. Following the protocol, the members “produce” a first version of what will become a research question. The next step is to improve the question via the Litmus protocol. 90% of the draft versions are being adapted during this 25 min. activity.

Instead of proceeding elaborating the inquiry question, it is now time to enhance motivation, and at the same time give good examples of practitioners inquiries answering inquiry questions leading to satisfying results. This part of the workshop can be adapted to the remaining time. Make sure 15 minutes is left for reflection on the learning of both facilitator and PLC members, as well as for some practicalities: next workshop, draft agenda for next workshop, input of the members in the next workshop agenda. Try to delegate some responsibilities to the members of the PLC.

A real threshold for my teachers in the process of getting used to PI process was the moment we showed them a bunch of PI examples from Belgium. That was really an “aha” moment for them. Starting from that point the teachers acquired ownership of their PI.

Now the situation is perfect for the first small step in real inquiry: as many members as possible should phrase a small, simple but good inquiry question (that could pass the litmus test). In small groups it can be discussed for a short time, for example 45 min. for question- feedback- which kind of data (not elaborated yet)- how to analyse and communicate conclusions.

In this context experience has shown that it has a positive effect if students are informed about the aims or goals of the inquiry idea, without necessarily giving them all details. It motivates them a lot to be part of “research”, and especially for science students it strengthens the role of the teacher as a critical inquirer or “researcher”.

One teacher in Belgium asked his students in what order they would like to tackle the subject “the physics of the pendulum”; he gave them several possibilities. The students, to his big surprise, wanted to start with experiments and a report on their lab work, then they wanted to discuss the report and experiments and exchange experiences and learnings, and only at the end they wanted the teacher to explain the theory of the pendulum. According to the teacher the results were a lot better, and teaching was a lot easier because of the motivation of the students.

The two level reflection still is very important at the end.

The 4th Workshop

Where the PLC members are encouraged to carry out a small inquiry that is linked to their main question.

Inquiry as a facilitator

Teach as you preach

- Connect motivation to focus/wondering/question
- Formulate your inquiry question
- Learn how to observe objectively, and how to collect other kinds of data
- The facilitator can give an example of a small inquiry he carried out on the members of his PLCT: small question, simple data, simple analysis leading to a clear, basic conclusion
- Keep the community's members' passion for their job, formulated in their inquiry
- He should motivate at least 2 or 3 members to communicate their small PI

The teachers of the PLC aim at improving their practice, so should the coach. Is he really engaged in becoming a better coach? Which evidence is he providing? The small inquiry by the facilitator can use the reflections of the members of the PLC as data to find the answer to a small inquiry question. Given the reflections on the course of previous workshops, the facilitator might look for the answer to questions such as: “Were the course elements chosen well?” or “To what extent was my coaching flexible?”, “Was timing kept?”, “How was feedback taken into account?”, “How were protocols adapted in order to support the learning of the teachers best?”. He could use a protocol to analyse these data, together with the PLC, and find answers to those questions.

A lot of time is dedicated to the skill of asking questions: useful in the class, useful in discussions with peers, and, of course, the inquiry question is a key element in the PI.

This teach as you preach idea can give a boost for the teachers as well.

The main idea is to keep this initiative small but powerful.

Alongside this reasoning, it is a good idea to also ask one or two more persons to present their little inquiry. It can be done in a rather informal way. The facilitator should look to it that the different steps of the inquiry circle are recognisable in those examples. (see below for more explanations).

PI as member of a PLCT

Improve your practice

- Connect motivation to focus/wondering/question
- Communicate the results and experiences of a small inquiry: a question that helps with the setup of the PI .
- Formulate your inquiry question
- Optional: Find your [Critical Friend](#)
- Learn how to observe objectively, and how to collect other kinds of data

Recommended
scheme of the
workshop.

- PLC: The art of asking questions: Information sheet on clarifying and probing questions.
- PI: Communication of results of preliminary inquiry -prototyping.
- PI: Overview of examples of Inquiry Questions.
- PI: Developing your inquiry question (Peer assessment using probing and clarifying questions): The What, so what?, now what? Protocol for a question.
- PI: Easy data gathering protocol: preliminary choice of data linked to the inquiry question
- PI: Review of examples of best practice of PI with focus on data. Link to [Volume 2](#).
- PI: Optional: invite an experienced teacher to present a best practice example.
- PLC: 2-level reflection (if only one workshop)

As usual, an introduction is needed for the next workshop (skip this if working in whole day workshops): reflection on the feedback, how did the facilitator take the feedback into account, followed by an icebreaker activity.

The big issue is at the moment: questions: how to ask questions? What kind of questions? How does asking questions relate to learning. The Clarifying and probing questions protocol is a key element in a PLC. In discussing with one another, questions should clarify the situation first, and then good, deep thinking questions guide the inquirer to a deeper level of understanding his own mission.

Many examples of inquiry questions are available in [Volume 2](#).

This skill is useful in the next activity: the facilitator and some colleagues present, rather informally, maybe with handwritten notes only, or with a PC as tool, their prototyping inquiry. Asking them “good” questions is the exercise now. To provide even more input, time can be used to read through a list of inquiry questions posed in the past by colleagues.

G Ownership remains essential! Do not steer teachers too much towards topics you prefer.

The examples might inspire some members of the PLC to change their inquiry question. This is perfectly acceptable. Any learning, in any phase should be used to enhance the quality of work, no matter the timing.

Now, the new knowledge will be applied during the What?, So what? Now what? protocol about the inquiry questions of members of the PLC. This is a nice test for each member to see if his ideas on his inquiry are well argued

and well designed. After this discussion, all teachers doing a PI should think of a small question, easy to answer, given an easy data collection strategy. It should boost their PI, or give certain essential basic information on the class, the students, their ideas, pre-knowledge or other aspects that might be helpful or even important to know before really starting off the PI.

To make the inquiry more concrete, the *Easy data gathering protocol* is now put in place. Everybody in the community chooses 2, 3 or even 4 preliminary data sets for his inquiry.

One of the chosen data sets (small survey, 2 open questions, asking for ideas, ...) should aim at the small question, collecting data on the pre-knowledge of students, their motivation, their ideas, their preferences, etc. , this in view of the more over all inquiry planned later.

A lot of teachers only think about questionnaires as a way to collect data. They need coaching to understand that a lot of other data collection methods exist and that, as a matter of fact, they already have a lot of data in a natural way that only needs some structuring.

The coach follows the principle of teach what you preach, taking gathering data as an example.

Going back to the examples of small inquiries given in workshop 3, we look now more closely to these examples and try to reflect on the usefulness, the added value of this initial step. The group now first discusses for each individual data collection plan, focusing on the small question and how to collect this first set of data in the nearby future (prior at least to next workshop).

From the point of view of the facilitator this strategy has the following strengths:

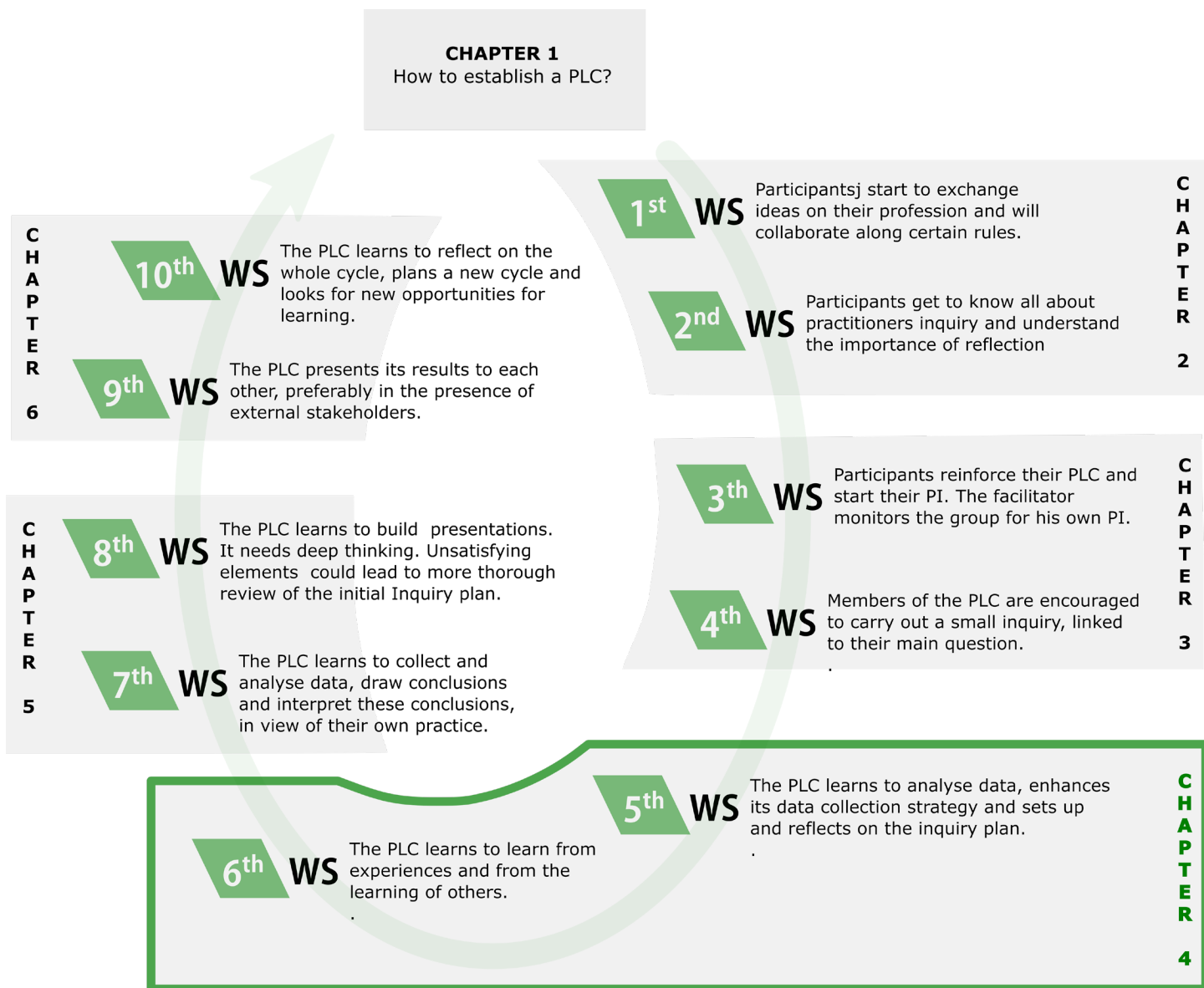
- Members experience on a small scale what it is to collect data
- Analysing these data informs them about analysing other kinds of data
- Added value of analysing these data to inform the inquiry itself
- The added value of analysing data within the PLC adds the groups' expertise to the analysis and to the inquiry itself
- This leads to big professional discussions, enhancing the trust and group feeling

Optional but very interesting is the following. 3DIPhE partners report several times that teachers are reluctant to pave new ways. A teacher, explaining how he evolved from beginner to experienced practitioner in doing PI could help. A colleague reports: "Experienced teachers reporting on their results on PI is a very efficient methodology to motivate new teachers for PI. Bringing in the teachers as persons, not their cases...". Another one says the same in other words: " PLC members want more sharing of good practices." The facilitator should keep in touch with former members and establish a small network to support his PLCTs. As shown, it can stimulate the motivation of his PLCT, a key element of success.

The workshop is closed after individual portfolio of learning and reflection on the workshop as a PLC.

CHAPTER 4

How to deepen the insights of a PLC in view of their PI?



The 5th Workshop

In which the PLC learns to analyse data, enhances its data collection strategy and sets up and reflects on the inquiry plan.

PI as a facilitator

Teach as you preach

- Working with data: facilitators of a PLC need to work with data
- Facilitator organises teachers in a PLC to analyse conclusions of others
- Create a doable inquiry plan
- Refine inquiry plan
- Drawing conclusions from data:

Facilitators in their PLC need to continuously monitor the feedback of the PLCT members: this is also a data analysis activity

Coaching a PLC

- Study tools and materials: focus: protocols
- Reflect as facilitator on workshops, at the beginning, during and after the workshop
- Facilitators need to facilitate drawing conclusions from data by teachers in PLC

For the future facilitator a good exercise is to make a new protocol, or, at least change an existing one to serve his needs best. A challenge could trigger this: suppose next time not 8 but only 5 PLC members are present, only one person provides data for the exercise, suppose there is only 30 min for a protocol instead of 50 min. A mental preparation for such an unexpected situation is daily life reality, a facilitator should be prepared for that kind of flexibility.

Analysing data by members of the PLCT

Drawing conclusions from evidence

Realistic and useful exercise

- Teachers in a PLC learn to work with data
- Teachers in PLC learn to draw conclusions from data
- Teachers in PLC need to analyse conclusions of others
- They create a doable inquiry plan

Recommended scheme of the workshop.

- PLC: Icebreaker
- PLC : What?, So what? Now what? protocol
- PI: [Data Analysis Protocol - Tom Loneragan Vignette](#) using the [Data Driven Dialogue Protocol](#) / [ATLAS](#) Protocol imposed, used for the data collected on the simple question of each individual/ LS
- **PI: Additional Data Analysis Advice**
- PI: Presentation exercise: present a mini-inquiry
- PI: The updated PI plan
- PLC: 2-level reflection (if only one workshop).

The icebreaker activity can go back to the asking questions section. The chalk talk is possible, given the task to write down productive questions they have after the first mini-inquiry they carried out, or other issues concerning the PI or PLC.

The word protocol has been used several times already. The facilitator has lead several activities using a protocol, so the PLC experienced it already. It is time now to dig deeper into the questions that might have risen: the “What is a protocol?”, the “Why using protocols?” and “How to use protocols?”. Information is available in the appendix on page 126. Mastering the use of protocols is crucial and essential for each facilitator.

The next item is how to analyse data. An example is illustrated on the picture.

The qualitative data collected are analysed using the Atlas protocol, so in a guided way. One of the steps is to cut all written pieces of data in separate sentences and then order them according to common ideas, revealed by ordering them. On the picture the pink post-its are the headings for the white sentences dealing with that heading. Next step is to formulate conclusions for each heading, based on the white sheets with data coming from the data gathering activity. Protocols guide the facilitator or teacher through this activity, a way to become more confident in dealing with many written data.

The facilitator should provide real data and guide participants through a data analysis activity.



Drawing conclusions is not very easy, and doing this with peers enhances the quality.

A practical way to exercise this is to make a small poster on data collected during the mini-inquiry. This poster can then be used in the next round: presentation of my mini-inquiry. PLC members will value this experience a lot, formulating strengths and weaknesses but also opportunities and threats they see after this experience.

The time has come now to update the PI data collection plan is updated and put in the global PI plan (inquiry brief) as well.

The 6th Workshop

In which the PLC learns to learn from experiences and from the learning of others.

PLC: why is learning in a group effective

- Keep motivation for doing a PI in a PLC, how this enhances the competences of a teacher
- Study best practice examples of PI done by facilitators: see [Volume 4](#) in the section “case studies”.
- Members gather feedback on their inquiry plan

The facilitator should contact his critical friend and discuss the inquiry plan he came up with. This inquiry plan is (re)shaped after the small inquiry done before.

Studying examples of colleagues in dept can inspire him to finetune his inquiry. Look at case studies in [Volume 4](#).

If using a vignette to demonstrate an example of a PI, it should be a PI from a subject that is relevant to the teachers (in this case Physics, Science)

PI: Sharing Element

Sharing is the start of something new

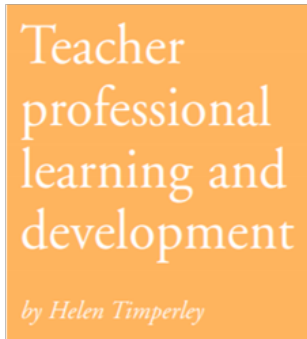
- Remain motivated: what does literature say about professional learning
- Gather feedback of peers on your inquiry plan
- Lessons for your practice in the future
- Learning from others' work and conclusions
- Refine inquiry plan
- Study best practice examples to enhance own PI

The 6th workshop

Recommended scheme of the workshop.

- PLC: Icebreaker
- PLC: Learning from literature
 - PLC members read [Timperley](#) document using jigsaw protocol. PLC members develop a consensus on recommendations for PLC building
- PI: Studying best practices in a targeted way:
- Data collection, how data are presented, how analysed, how the presentation looks like.
- PI: Consequences for the individual member of the PLC: what needs to be anticipated during the PI.
- PLC: Reflection on 2 levels

As a facilitator a good ice breaker always sets the scene for the rest of the workshop. In section on icebreakers, also on the Linpilcare website there are several: [comfort zones](#), [True or Lie](#).



The Timperley document is made with support of UNESCO.

Ten recommendations are discussed, each of them dealing with a key topic. The jigsaw protocol is an activity in which such a 36 page text can be mastered in a minimum of time. All teachers of the PLCT are engaged, talk and discuss, and share learning. In this context it is a motivation for teachers to carry on with their PI.

The next activity is the peer review of the inquiry plan by peers. This can be done following the Inquiry brief feedback protocol, but 3DIPhE developed at least two other ways:

1. By asking participants to make a small PowerPoint on their plan, present it, followed by peer feedback
2. By using Google Doc forms for providing feedback to each other. Two by two giving detailed feedback to each others plans.

The advantage of both steps is that firstly members exercise in making a presentation, containing a lot of elements useful at the end of the inquiry, and presenting it, secondly to train giving feedback as a professional dialogue. The latter provides detailed time consuming feedback, without loss of time during the workshop, at a moment that suits everyone.

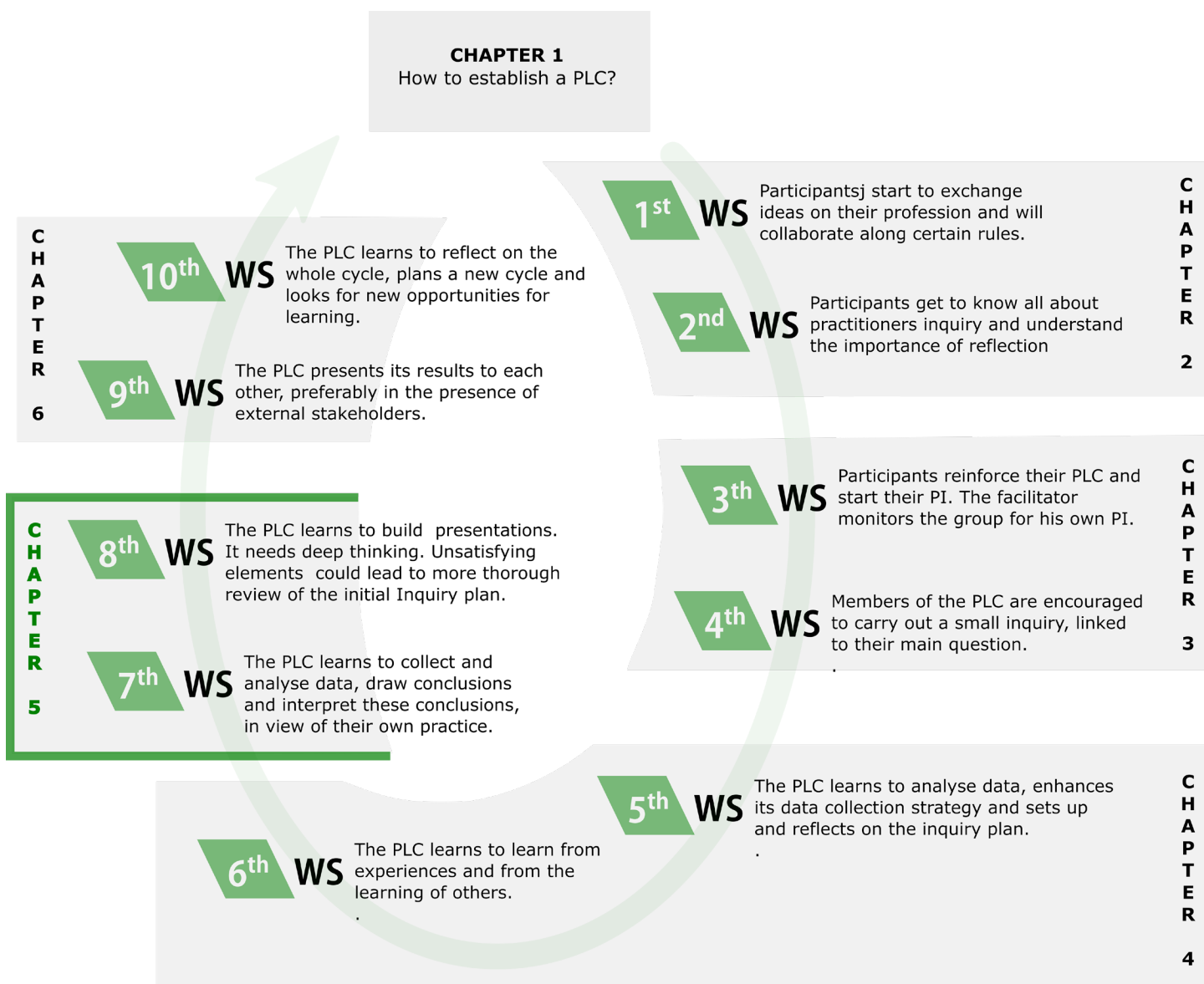
After this expert feedback, the inquiry plan probably needs some finetuning.

A well-functioning PLC is a real asset for the teachers, especially when they are supposed to collaborate on integrated subject matters, each teacher from his/her specific expertise and background. From that point of view moments where teachers can exchange concerns and ideas are an added value to a workshop.

Again, the last activity of the workshop is to reflect: teachers write down personal learnings, learnings to be shared and for the whole group as well as for the coach, and the facilitator also writes down his own learnings.

CHAPTER 5

How to lead the PLC to a fruitful and satisfying end of the PI cycle?



The 7th Workshop

In which the members of the PLC learn to collect and analyse data, draw conclusions and interpret these conclusions. Also consequences for their practice need to be considered.

PLC: why is learning in a group effective

- Reflect as facilitator on workshops, at the beginning, during and after the workshop
- Reflection where facilitators reflect on course elements and relate to how they would use when conducting their own PLC
- Survey: Is your PLC really a PLC; Has your PLC essential elements of a healthy PLC.
- PLC: Adapting Protocols
- PLC Reflection can vary too, choose between several options

After 6 workshops, it is time for a structured reflection on what the facilitator has been doing so far. There are 3 components in this reflection:

1. Were the 6 previous workshops in equilibrium: did they provide the previewed learning of the teachers in connection with actions taken at their schools.
2. What is the real feeling of your team, are they ok in this setting? A good survey collects answers to different questions of all PLC members, while a “normal” reflection usually is very scattered, depending highly on the individual. Both are complementary and needed for the learning of the coach, as well as a way to improve possible weaknesses, which is an added value for the PLC.
3. Has the facilitator engaged enough in leading this particular PLC? One indicator here, a very elementary one is: to what extent did the facilitator work with existing protocols, adapted ones, or newly developed ones. Protocols (and information sheets) are powerful tools to facilitate teacher learning. The facilitator should pay a lot of attention to them.

The facilitator should turn these issues into a short but targeted survey and put it maybe online.

This survey, evidently, is a source of data that could help answering the inquiry question of the coach. No need to explain once again, that this survey can, maybe should be, adapted to the actual context, for example the inquiry question of the coach.

The facilitator makes sure the members of the PLCT are still motivated. Perspective (presentation in the future), ownership, peer exchange of opinions, knowing that this kind of learning really meets high professional standards, but also attention for individuals’ needs are possible

Wrapping up a workshop is very important. People leaving early for example are very disturbing, ground rules should deal with it. Once the author of this book started with 6 members in the PLCT, and before the official end of the session only 2 were left, 4 others, one after the other, leaving with an acceptable excuse. What could he do? Here it can be very functional to have a reflection, rethinking the workshop as was recommended previously. The two remaining could mention the problem, and next time a solution needs to be found with the whole group. As in this example, sometimes the atmosphere is just not good enough for this last effort, the reflection. Sometimes it is wise to consider another kind of reflection or wrapping up, a light version. Leaving the work shop early is also a very bad sign for the facilitator as far as the motivation of the group is concerned. Time for him to take action!

PI: Sharing Element

Sharing is the start of something new

- Lessons for your practice in the future
- Learning from others' work instantly
- Problem solving phase and discussions

The 7th workshop

Recommended scheme of the workshop.

- PLC: Icebreaker
- PI: Status of the inquiries: discussion via Peeling the onion protocol.
- PLC: Survey on health of a PLC + Discussion
- PLC Reflection, a light version this time.

The icebreaker again should focus people on the group. An icebreaker can be a structured social talk as well. For example: "Tell us one positive story that is connected to the Pi you are doing", or "Tell us something about the place you live, or the place you were born" 1 minute per person... Never push people that are reluctant. As a facilitator you should help such people to "escape" from the task, rather than bringing them in an embarrassing situation. Flexibility is the key word here. Always make sure it has something to do with the group as a group, with a group building dimension. Never small talk, just stories, or just jokes. The facilitator knows his team by now, and should be able to judge what is possible. If one of the previous workshops a topic caused some discussions, the following icebreaker could bring up that discussion again, the coach's choice.

Since the members started their inquiries some time ago, now it is a good moment to exchange the status of the inquiries, how it well goes, maybe some difficulties popped up, asking some advice is useful. The expert group of teachers (this is the PLCT!), together with the facilitator can provide useful hints and support. Everybody has some experience now, and it can be very fruitful to communicate it in this stage. In this way the learning can be used, maybe even during this first cycle already. There is no set protocol for that, but existing protocols can be adapted: What? So what? Now What? for example in a simplified version can really structure all learnings and needs. Another much stronger protocol is the "Consultancy protocol". In this guide we opt for "Peeling the onion". It is up to the facilitator to study different possibilities and to make a choice.

The members will be aware that the facilitator also has this inquiry attitude, and a small survey illustrates that once again. After answering, there might be the need for discussing some of the issues raised in the survey. The facilitator should listen carefully. Also remarks at that moment are data for his inquiry.

This time, after the survey and discussion, another reflection just could be too much. The facilitator should decide on the spot. It can be a good idea to motivate the teachers to write down only one learning. Another idea is to organise another kind of feedback, more in a playful way, for example with *exit tickets*, *chalk talk*, *plus-delta* or *paper twitter*.

The 8th Workshop

In which the PLC learns to build their presentations. Gaps and lack of data or unsatisfying conclusions could lead to more thorough review of the initial inquiry plan. Choices on how to present results need deep thinking.

PLC: focusing on the final workshops

- Lessons for your practice in the future: you will be a better facilitator of a PLCT
- Are data in line with the inquiry question of the facilitator?
- Are all members of the PLC still on board?

The 8th workshop has no set scheme: at this stage the facilitator should take responsibility to make sure all members are happy with the status of their PI. Lacks and unsatisfactory issues should be tackled and solved, preferably in peer discussions.

If possible, provide additional individual coaching moments. In this way you can provide support more into depth. Online coaching can never replace a real physical meeting. However, it can be an addition to physical meetings in cases of necessity (like the corona health crisis)

Presenting the PI to peers (and others) is inherently connected to doing a PI. It generates another kind of thinking about the PI, another approach. The facilitator should stimulate this look at the PI.

This workshop is a real working workshop, in which the PLC members need to discover if they have all pieces of the puzzle: the data, the data representation, pictures, graphs, schemes, schedules, tables, boxes, scans, ... etc. The whole presentation should pass through this kind of critical eye.

It is very satisfying to have the presentation (almost) ready by the end of the day, leaving only a few details, for others this can be a wake-up call: missing important pieces of their presentation. For everybody there is some time left for improving the presentation.

Probably, but this up to the coach, it is ok to have a moment of step backwards to look where everybody is, to reflect and to ask for feedback, or the ask for advice or even help. It will add to the group feeling.

Collaboration and Sharing Element

Sharing is the start of something new

- Learning how to create a poster / presentation
- Learning how to present inquiry question, method, data, conclusions, discussion
- Analyse cases/examples
- Learning from others work and conclusions
- Ask for help

**Recommended
scheme of the
workshop.**

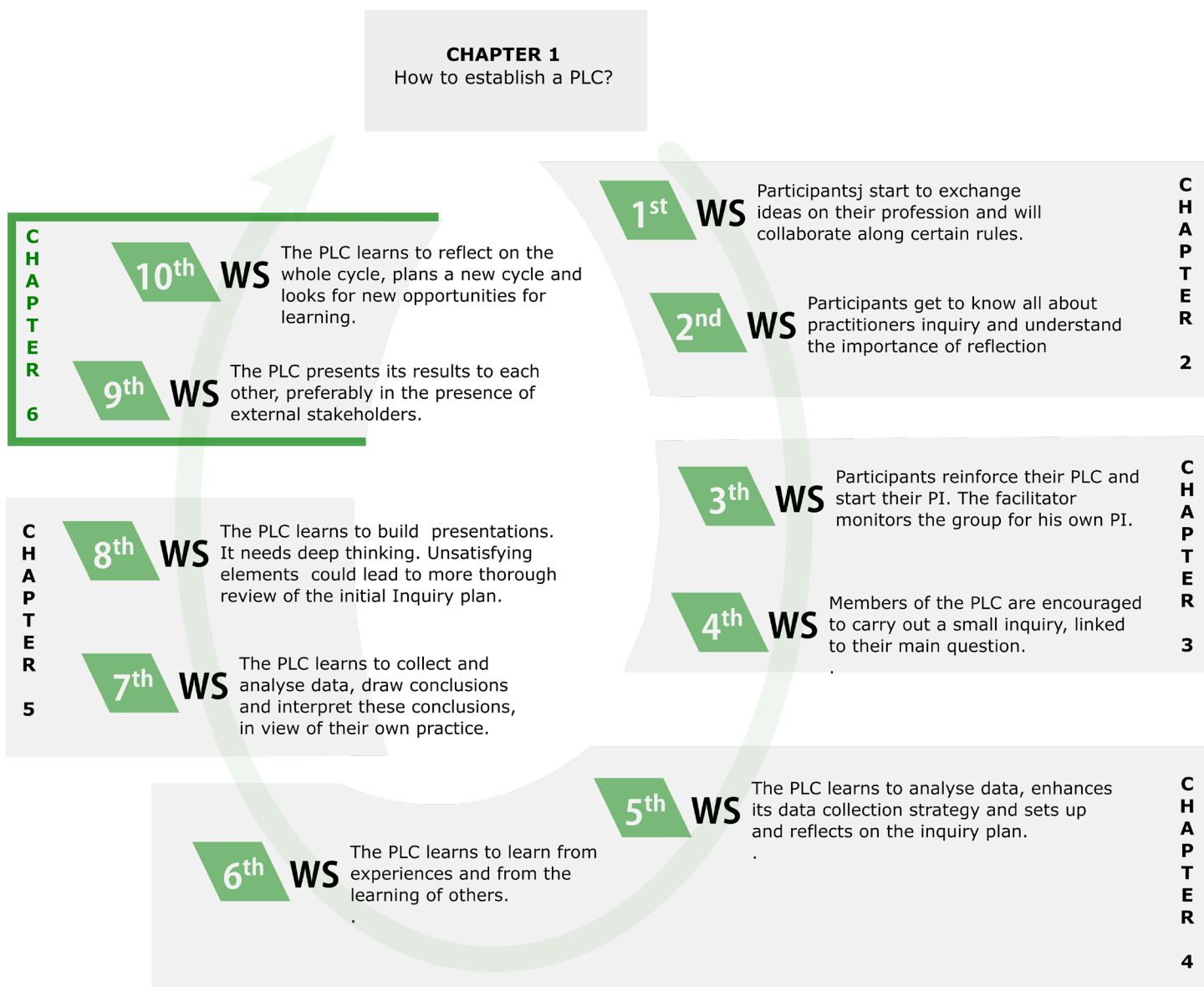
- PLC: Icebreaker
- PLC: Q & A time: the PLC can ask questions and put forward some issues
- PI: Making the presentation of the PIT

After the icebreaker (if this is a separate workshop) it is important to make the members confident that they can make a presentation. Many teachers never before have made a presentation of their own, with own input from A to Z. To help them, it is best to take a few examples to make clear what is needed for a good PI presentation: every step of the inquiry is present, the question, the context (short) the methodology, the data gathering strategy, the data gathered, their analysis, conclusions and interpretation. Finally the real learning that took place and in some cases the plan for the future. [Volume 2](#) of the 3DIPhE e-book is a valuable source of information in this stage.

To make the presentation attractive it should be simple, well structured, with illustrations of evidence (photo, table, scan of student's work), with diverse kinds of elements (heading, icons, photos, tables, arrows, text boxes, and a few colours (not too much colouring either)).

CHAPTER 6

Presentation of the results of the PIs of the teachers



The 9th Workshop

In which the PLCT presents its results to each other, preferably in the presence of external stakeholders, colleagues, heads, teachers from other schools

The facilitator is gathering the last data for his own PI

- Use all reflections to develop next workshop
- Gather media data, and the presentations.
- Reflect as facilitator on workshops, at the beginning, during and after the workshop
- Maybe ask PLCT members to have a small interview with targeted questions (only 2 or 3)

Presenting to only the members of the PLC, is the minimum version of the event. Changing the setting into a rather formal one can make it a little bit special. For strategic reasons the facilitator should expand the event at least to the whole school level, if not beyond the school: colleagues of other schools, advisors, researchers, other educators in general.

Announcing this can have a stimulating impact on the PLC members, causing some “healthy stress”. The event gets more weight, and is a kind of propaganda for the method of PLC as teacher learning strategy. A small formal reception, a short speech, an official moment of celebration with certificates of participation creates a festive atmosphere. It is a way for the facilitator to reward the PLC, to express appreciation and respect. An “important” official can contribute a lot in this, as well as the presence of the externals.

G The last workshop devoted to the presentations of the PIs outcomes followed by discussions within the group and with the presenter is an indispensable part of the course. Teachers learn from the each other how to improve the content and the format of their presentation and how to behave like a critical friend.

To be able to present draft results in a trusted environment gives a boost to the PI. The facilitator appreciates the progress and encourages all members to improve their mutual work.

PI: Sharing Element

Sharing is the start of something new

- Printing, if a poster is made.
- Presenting and Sharing PI
- Lessons for your practice in the future
- Learning from others' work and conclusions

Teachers know beforehand the format of this event.

Presentations are prepared well, and all technical aspects are taken care of.

Teachers keep gathering notes and learnings during this event.

The 9th workshop

Recommended scheme of the workshop.

- Presentation of all PI, using plenary or poster format
- Reflection: what did the peer-teacher learn
- How did the results of the students enhance- is the evidence valid?
- What do I learn from my peers?
- What can I do with this learning?

The last activity is a small celebration, in which the official “diplomas” or Certificates of Attendance are handed out. Print those on thick paper, and make this a little bit official. Invite for example a special guest to make feel PLC members respected.

The 10th Workshop

In which the PLC learns to reflect on the whole cycle, plan a new cycle and looks for new opportunities for learning.

The coach, if possible, adapts his PLCT workshops plan, timing, content, to the learnings he experienced.

- Summarise all reflections at the end of a cycle to motivate for next cycle.
- Adapt the course plan accordingly.
- To compare and contrast this course with a Case study on such a course, offered in another context

The facilitator really takes the lead in this workshop.

Focuses are: his own PI and communicate (some of) the results, keeping the team on board for next year, providing solutions for difficulties, pushing towards a realistic inquiry question and inquiry plan for next year, trying to expand the team with new members, and appreciate last workshop's effort to make the presentations event a success.

PI: Sharing Element

Sharing is the start of something new

- Lessons for your practice in the future
- Learning from others work and conclusions
- Plan the future

The 10th workshop

Recommended scheme of the workshop.

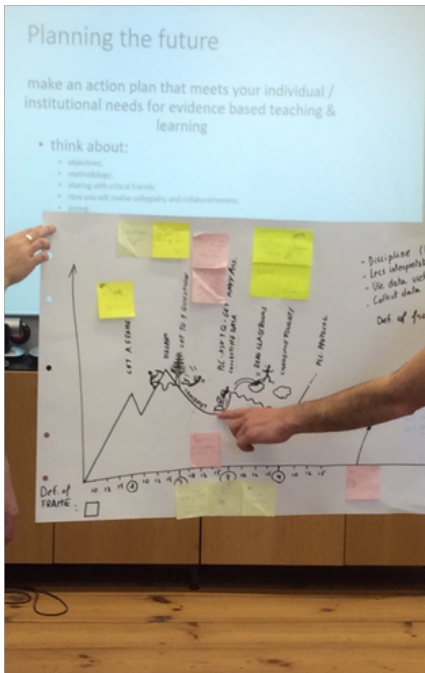
- Icebreaker
- Option: survey of the coach
- Pi of the coach: elements of learning
- Course reflection - SWOT
- Discussion of SWOT
- How to engage new members/ build a new PLC
- Next steps: plan for next year

- Celebration.

The last icebreaker can be a small present for each participant, or a drawing, a small poem, some nice words, an anecdote, a well-chosen song, etc... an occasion for the facilitator to show his gratitude to the group.

A thorough evaluation of the course/ workshops/cycle is the ultimate sign of professional attitude. This can be done in many ways, via a survey, a SWOT analysis, etc. Some feedback strategies allow to discuss the participants immediately (Lino, Padlet, Sticky Notes, or other), or after a few minutes (Google Forms).

The last workshop reflects on the past and plans the future, both for the members as for the facilitator. .



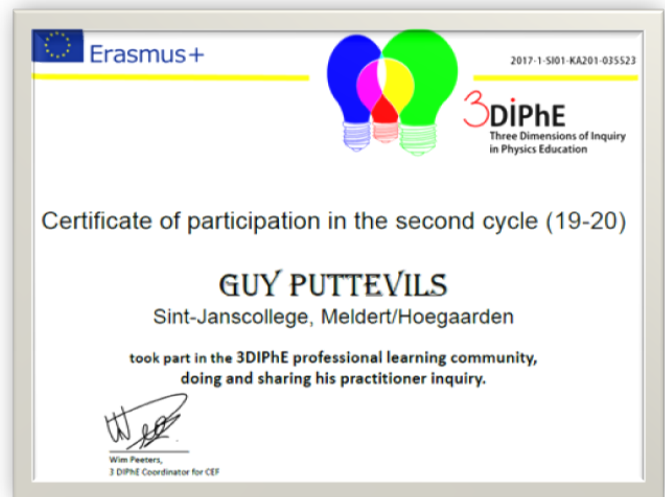
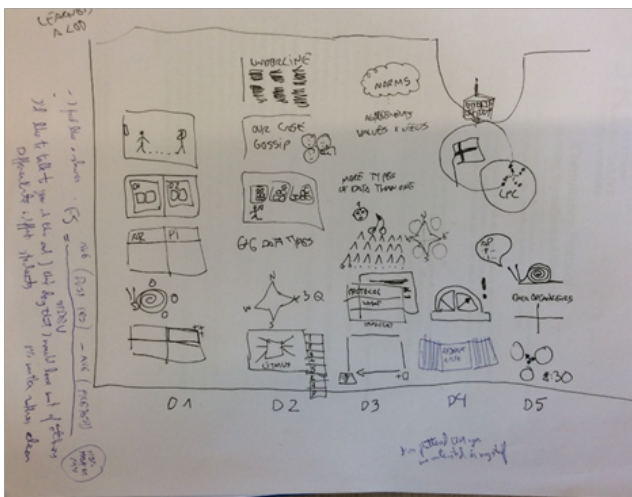
Yet, 3DIPhE offers another very valuable opportunity for learning of the coach. During the project, a case study was made on a one year long collaboration of PLC of facilitators (see [Volume 4](#)) in which a community of facilitators exchanged their learnings during this one year process. This case study offers plentiful ideas, alternatives and insights in this “job” of being a coach. Reading this document can give rise to reflect on questions such as “Are there other schemes for Workshops?”, “What reflection tools were used?”, “How can a facilitator collect evidence for his own learning?”, etc. Our advice is not to read is a sheer literature, but to read it in a targeted way, having in mind specific learning goals.

During the course PLCT members have gone through a learning process.

One nice way of sharing the learning with peers was a graph expressing their learning throughout the 10 workshops. This in combination with their motivation to continue. It could result in a bumpy trajectory like on the photo: with heights and valleys. Writing alongside this chronological graph what

happened and why, results quite often results in a clear an to-the-point feedback to the coach... not to mention the creative aspect of the author.

The last effort is to plan the future. Do participants have a new inquiry question? What initiatives will be taken next year. To engage everybody it is advisable to allow a very creative expression of these plans.



PART B: THE COURSE WORKBOOK

MONTHS BEFORE DAY 1

PROGRAM OF THE 5 DAY COURSE:

DAY 1

I am a member of a PLC of facilitators

DAY 2

How to guide the PLC towards a practitioner inquiry?

DAY 3

To provide solid ground for coaching the practitioners inquiry

DAY 4

**Ful scale implementation of the PLCT
Preparing for presentation**

DAY 5

Presentation, feedback and FULL-SCALE reflection of the course

ADDENDUM FOR THE COURSE

Evidence-informed Coaching of Professional Learning Communities

The course workbook

How to facilitate PLCs and monitoring the learning of teachers at the same time



PREFACE

This workbook is meant for participants of a one week training to become a facilitator of a professional learning community. All participants together form a learning group of facilitators too.

This one week training aims at building the first experiences of facilitating a community, at enhancing knowledge, skills and attitudes of the future facilitator. During this week he will experience a lot of intense and personal learning moments. He will learn to understand the Guide (which he will be able to use, once facilitating a community), he will study and learn to adapt to situations in a flexible way, he will need to filter out the most important leanings for himself, note them down and use them in his practice. He will have to have a good overview of all materials available in appendices and use them in an active way to give answers to challenges proposed.

This way this course will establish a realistic context for real, active learning and launch the future facilitator towards a strategy for continues learning by doing practitioners inquiries.

This one week is intended to be the start of a process. The facilitator will need a lot of energy, motivation and perseverance to reach his goals. The background provided here will be a very strong support for that.

INTRODUCTION

In the [Erasmus+ project 3DIPhE](#) the main goal is to enhance inquiry-based learning by students and teachers and facilitators. It provides a guide (e-book) for facilitators with several chapters, all connected and intertwined.

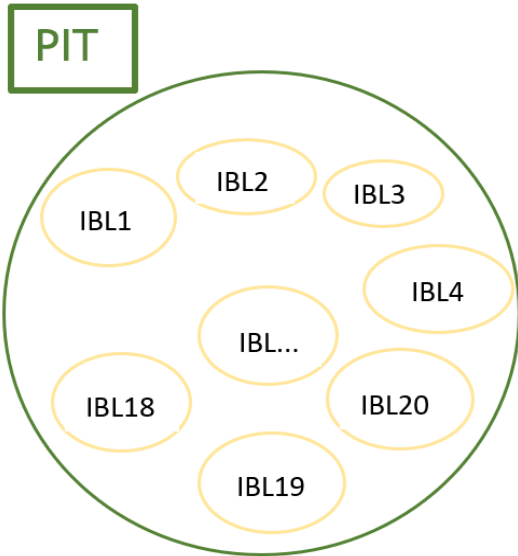


Figure 2: Learners in a class doing IBL, the teacher monitors this process by doing a practitioner Inquiry (PIT)

One of the parts of the e-book of 3DIPhE focuses on the inquiry-based learning (IBL) of the students (IBL1, IBL2, ...). Another on practitioner's inquiry by teachers. Yet another part focuses on the tasks of a coach.

The facilitator guides/facilitates/facilitators a group (soon becoming a community) of teachers, doing a practitioner's inquiry (PIT).

In this introduction we clarify and launch a common specialist language, including abbreviations.

In this course we focus on strategies for coaching a (professional) learning community (PLC) of teachers (PLCT) that learn how to improve their practice by doing a practitioner's inquiry (PIT).

This coach (we will use the word "facilitator" often) also needs to do this in an evidence-informed way, also by doing an inquiry on his practice as facilitator (PIC: Practitioner Inquiry of the Coach):

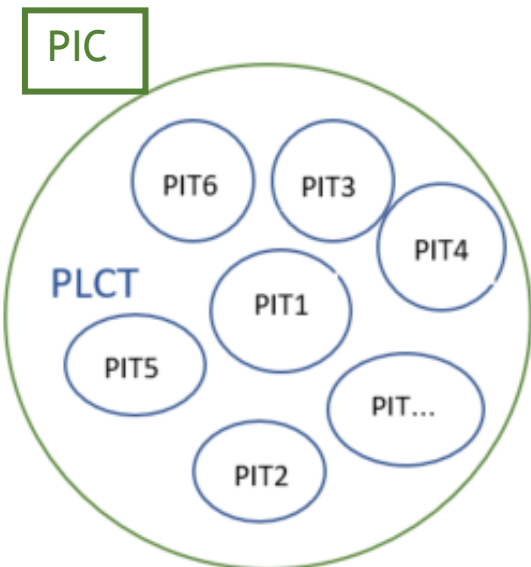
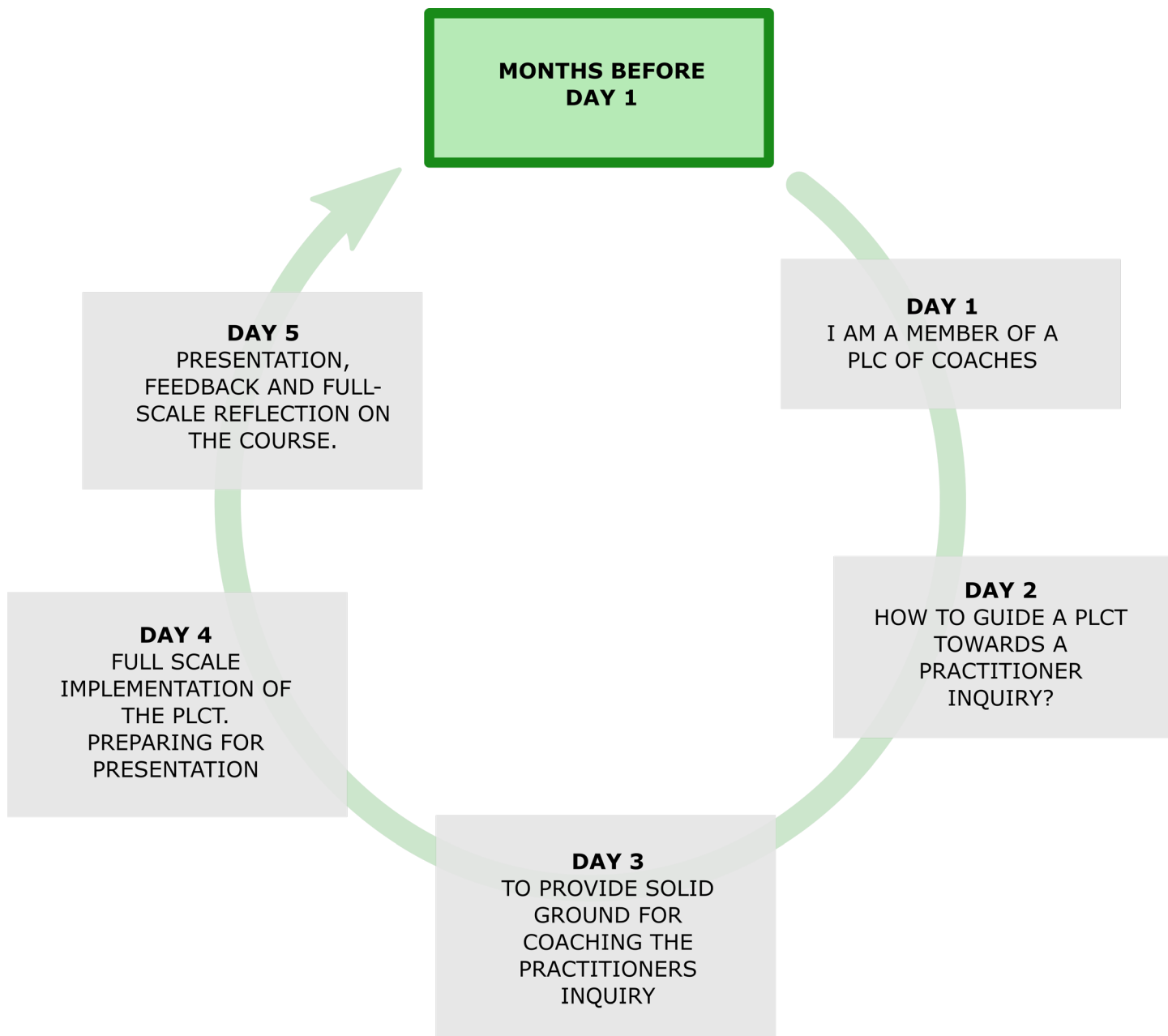


Figure 3: A PLCT composed of several teachers, each doing a PI (PIT). The coach monitors this process by doing a PI (PIC).

During this course we will often refer to the 3 DIPhE e-book, the Facilitators Guide part and the Practitioners Inquiry part.

In this course we follow two strands at the same time: the main strand is facilitating, coaching a PLC in many different aspects. The second strand is the facilitator as an inquirer, the facilitator carrying out a practitioner inquiry to continuously improve his practice.

MONTHS BEFORE DAY 1



Advice for the facilitator:

- Some preliminary talks with future members might help
- Prepare well: make a scheme of all workshops needed, communicate the basic goals and the step by step approach of the learning during the PLC workshops.
- Formulate well the goals of the first workshop.
- Also, for all other workshops this is crucial, but the specific, detailed goals, although maybe having them in mind already, need to be formulated only later, after the feedback of the members of the PLC. It is crucial to link goals constantly to the needs the members express in their feedback document.
- Link working strategies or protocols to the goals.

Goals, focuses and activities for future facilitators this course.

Green box reflects goals and activities for future facilitators, participants of this course. They are considered as a PLC too, carrying out a PI as facilitator. These goals are set by the tutors of this course. Activities are developed to give facilitators experiences, skills and insights in their role as facilitator as well as helping him to start up a PI as a facilitator.

Goals and activities

Reflects goals and activities that future facilitators could implement in their future PLCTs. These goals and activities are indicative, suggestions based on experiences of tutors in 3DIPhE.



Recommended scheme of the workshop.

These boxes give a recommended scheme of a workshop.

Texts in green express the learning of 3DIPhE partners being a facilitator of a PLCT over the last years.

PROGRAM OF THE 5 DAY COURSE:

Day 1 I am a member of a PLC of facilitators.

- 9.30 Pre knowledge and context
- 10.30 Reflection tools for you and for the PLC
- 10.45 Break
- 11.15 A passionate facilitator: what is the driving force?
- 12.00 Attributes of a learning community
- 12.45 Feedback for the facilitator on the whole morning
- 13.00 Lunch
- 14.00 Norms and values of a PLC
- 15.00 Kinds of PLCs, based on PIs of participants
- 15.15 Short break
- 15.30 Discussion on the 1st workshop, the start-up of a PLC.
- 16.30 Debrief of the day & reflection.
- 16.30 Reflection: write your personal remarks and learnings of the day in the following box:

Day 2 How to guide the PLC towards a practitioner inquiry?

- 9.00 Icebreaker
- 9.30 Summary of day 1
- Agenda of the day, norms and values of yesterday, results of feedback, ideas on schemes for 2 workshops
- 9.45 The Gardner versus Farmer protocol
- 10.15 Quick overview of the PI cycle using a presentation
- 10.45 Break
- 11.15 Kinds of PLC
- 12.15 The use of protocols by a facilitator
- 13.00 Lunch
- 14.00 Result: overview of the 2nd workshop of the PLCT course
- 14.20 Generating an inquiry question by the facilitator
- 15.00 Reflection moment of participants
- 15.15 Short break
- 15.30 Discussion on the 3rd workshop, the initial steps of a practitioner's inquiry.
- 16.30 Debrief of the day & reflection.

Day 3 To provide solid ground for facilitating the practitioners inquiry

- 9.00 Icebreaker
- 9.30 Agenda of the day, norms and values, results of feedback, where are we?
- 9.35 Asking questions
- 10.10 Examples of inquiry questions

- 10.15 Peer feedback on inquiry question
- 11.00 Break
- 11.25 Formulate your observations as facilitator in your own learning document
- 11.30 Easy data gathering protocol
- 12.28 Debrief
- 12.30 Lunch
- 13.30 Small inquiry plans to guide your practitioners inquiry
- 14.15 Data gathering plan of the tutors of this course, data from participants of this course
- 14.30 Discussing the 4th workshop
- 14.55 Discussing the 5th workshop
- 15.20 Discussing the 6th workshop
- 15.45 Discussing the results of the survey
- 16.40 Summary of needs after the discussions
- 16.50 Reflection

Day 4 Full scale implementation of the PLCT. Preparing for presentation

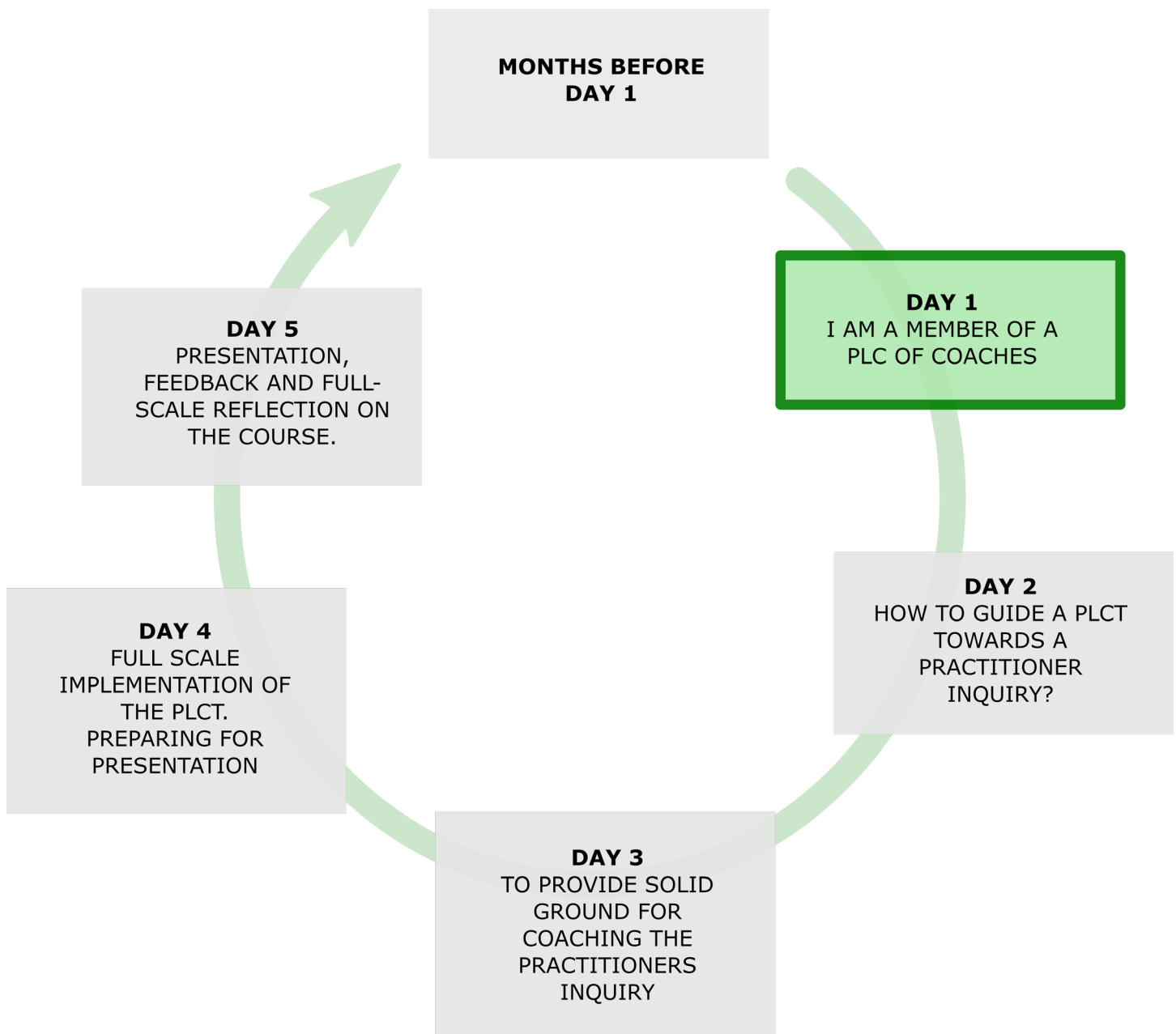
- 9.00 Icebreaker
- 9.30 The small inquiry of the facilitator as reflection moment
- 10.00 Analysing data
- 10.25 Explanation for this afternoon
- 10.30 Break
- 11.00 Discussing the 7th workshop
- 11.20 Discussing the 8th workshop
- 11.40 Discussing the 9th workshop
- 12.00 Needs analysis
- 12.30 Lunch
- 13.30 Timperley's text
- 14.30 Differentiation: 2 options
- 16.30 Reflection

Day 5 Presentation, feedback and FULL-SCALE reflection of the course.

- 9.00 Icebreaker
- 9.15 Plan of the day
- 10.30 Break
- 11.00 Plan of the day (continued)
- 11.30 Presentations of 6 action plans (mixed kinds)
- 12.30 Lunch
- 13.30 Presentations of 6 action plans (mixed kinds)
- 14.30 Presentations of 6 action plans (mixed kinds)
- 15.30 Overview 10th workshop
- 15.45 Survey, SWOT, learning
- 16.15 Celebration
- 16.30 Reflection

DAY 1

I am a member of a PLC of facilitators



The facilitator's initial task: to understand his role

- Analysis of need and subsequent building a PLC
- Launch PLC as a professional learning strategy
- Discover your motivations to facilitate a PLC for your context
- Familiarizing with coaching a PLC
- Discover different kinds of PLCs
- To establish attributes of a PLC

- Developing an overall scheme of workshops with the PLC: workshop 1
- Consider goals of each workshop (after study of reflection of yourself and of PLCT members)
- PLCT members reflect using a system in the cloud to gather reflections of all members to become a real learning community
- ...

PLC Development preparations

- To establish norms and values of a PLC
- Consider, study and select different types of protocols, chronology
- Establish flexible communication channels in the PLC, among them tools for reflection
- Organize practicalities (location, materials, dates, participants, ICT tools)
- Study possible schemes for workshop 1

9.00 Get to know each other

Icebreaker: Different cultures

9.30 Pre knowledge and context

- **(8 min) Participants prepare a presentation in which they answer to two questions:**
 1. Which is the context in which you see a PLC collaborating with you as a coach?
 2. How come you could be this coach?
 3. What (more) do you need to become a good coach?
- **Grouping (typical groups of 4, max 5, not 3)**
- **Taking turns of 8 minutes:**
 - (3min) The presenter gives the answers to the 3 questions and explains them
 - (5 min) The colleagues ask questions and the presenter answers
 - The colleagues note individually important needs that are mentioned
 - Next presenter
- **Sharing: needs formulated by members of the group: synthesis per group. At least 5 needs are listed.**

Exchange phase: groups mention one need at the time, taking turns. If the same need is mentioned it is indicated on the flipchart

Feedback for the coach:

- Digging deeper into the needs of the participants: comment and how during this course some/many of the needs will be considered
- Taking the level of coach: it is important that participants of a PLC experience the feeling that their needs are addressed. And, that needs can be the same or different for each participant.
- The Think-Share-Exchange method is used very often because it is a powerful way to engage all participants in the activity.

Alternative: this set of questions also is usable to determine the pre-knowledge.

10.30 Reflection tools for you and for the PLC

- There are two kinds of reflections for teachers: a personal one (which is each individual's responsibility) and one that is on the activities in the group, organized by the facilitator (which is important for the group, and also for the coach).
- Ask teachers to be honest, critical, but respectful. Let them ask questions.

Feedback for the coach:

- Make sure you also have a tool for yourself as a coach.
- It will be important for your own role as facilitator and – if you plan it smartly- for your inquiry

10.45 Break

Feedback for the coach:

- Breaks are important: make sure in your planning to have half an hour
- If this is available, talks among members are considered very valuable
- Plan B: buffer of time, in case activities last longer than expected
- Always communicate the situation and ask for participants opinion: shorter break, or longer work, or skip some steps?

11.15 A passionate coach: what is the driving force?

Why do you- the participant in this course- want to be a facilitator of a PLC of teachers (PLCT), or maybe a PLC with other staff of the school?

Protocol: Passions for being a facilitator of a PLC(1).

Feedback for the coach:

- Other self-reflection tools for the facilitator can be found in the Facilitators Guide.
- There are passions protocols also for teachers and other educators. If you are their coach, of course use those. Passions for a PLCT of teachers are available in the e-book, part Guide Facilitator and in the part on Practitioners Inquiry.
- Try to note the passions of the participants. It can help during coaching, when participants lose track: they can be brought back to the basic motivation
- Debrief is interesting here: ask just a few volunteers to share their motivation with others. Make sure you select a variety of examples.
- Starting from the assumption that you volunteered to become a facilitator of a PLCT, it might be advisable to do some self-reflection to get a better view on your motivation to become a facilitator.

How crucial this role is and how demanding is explained in the guide. Look at a series of practical

advice, recommendations and experiences the 3DIPhE partnership collected. It might help to understand better what you are up to in coaching a PLC soon.

- The facilitator should have a wide range of possible instructions/protocols but should apply the 'less is more' principle! Set clear goals, choose and select the appropriate protocol, but don't overload your workshop.
- While guiding the workshop, be aware of time! You must be strict so everyone can be heard, but also be flexible so you can work on actual and relevant challenges from your PLCT group.

12.00 Attributes of a learning community

Follow this protocol

Feedback for the coach:

- This a protocol that is being used here, as we consider this group of participants a PLC.
- It is also crucial in any other PLC, the one you will facilitate
- Make sure the attributes are exchanged: this poster (flipchart sheet) is useful during the whole week.
- Ask a volunteer to do the writing on the flipchart
- Make sure groups take turns in launching their ideas: ownership is in the whole group
- Make sure the idea put forward is really shared: ask for everybody's consent before letting it write down
- Never judge or comment on the ideas. Asking questions is allowed (clarifying questions, or even probing questions).

12.45 Feedback for the facilitator on the whole morning

Ask participants the following questions, some of them rhetorically; make sure you have an online form to let participants express their opinions/ answers

- Do we know each other better than when entering?
- Did we learn something from others that is more than "nice to know"
- Do you think this group is capable of learning together?
- What did you learn about yourself?
- Why using protocols?
- Is there a certain trust in the group?

At this moment you give the participants time to go to the form, and to write down just one or two lines. It is an exercise for this afternoon.

13.00 Lunch

14.00 Norms and values of a PLC

Protocol to follow is on page 117.

Feedback for the coach:

- Ask again for (another) secretary
- Make sure the norms are formulated in a way that everybody understands the consequences: these ideas are to be implemented during the whole week
- It is crucial the facilitator in the first place respects these norms and values
- Here it is possible to ask examples, or imagine situations how and when to apply them

15.00 Kinds of PLCs, based on PIs of participants

A bit of background information, simple knowledge that can be useful is given in the protocol on page 118.

Feedback for the coach:

- This is information, always available

15.15 Short break

15.30 Discussion on the 1st workshop, the start-up of a PLC.

- Take groups of 4.
- Discuss the following scheme, with the following questions as guidelines: (take the questions one by one, divide the time over the questions beforehand- appoint a timekeeper)
 1. How do you imagine building a PLC?
 2. Why and who would take part, and which goals can they have?
 3. What preparations are needed before the workshops?
 4. Are the questions of the consensogram relevant? How to change them? Which questions would you ask?
 5. Are the planned activities in line with the goals set for the workshop?

Possible goals for the first workshop of the PLCT course:

- The PLCT gets an overview of the long-term trainings workshops
- The members get to know each other and start collaborating in a professional but relaxed way
- The members learn about learning in a PLCT
- The PLC of teachers agrees on a working method
- PLCT members reflect on the personal level (their learning, their personal ideas)
-

Recommended scheme of the workshop.

Where the participants start to exchange ideas on their profession and agree to collaborate along certain rules.

- PLC: Icebreaker Activity: Getting to know each other.
- Baseline questionnaire - Gathering participants' needs and expectations of the training and pre-knowledge. This could be in the form of a pre-survey
- Goals of the workshop, agenda, timing
- PLC: Pre-knowledge: Consensogram Activity.
- PLC: Attributes of a PLC leading to Ground rules (Norms and values) of a PLC.
- Practicalities: planning overview, means of communication, setting dates, locations, sharing materials platform, report of the workshops, feedback tools,
For example: using Google Drive for sharing documents and writings...
- First reflection on this workshop.

Advice for the facilitator:

- the icebreaker should be a nice first experience here. (look in the guide for more examples)
- make sure the participants take notes during these discussions
- we tackle immediately the first challenge for better motivation
- many answers will be given during this week
- adapting the needs of this morning is always possible: be flexible and use outcomes of activities repeatedly (norms, reflection, attributes, needs, ...).
- The protocols need strict follow-up
- Badges with names help, and the first hours to ask members to mention their name before taking the word.
- the Consensogram protocol, with well-chosen questions, can give rise to discussions on having a PLC, the value of collaboration, share opinions on PI and all kinds of thinking of people. It is a good introduction to the Attributes protocol, and further to the Norms and values protocol.
- Given GDPR, members should explicitly agree with forming groups on social media (WhatsApp, Facebook, ...)
- It is advisable to start with a whole day, or even two whole days. The more complete the information they get right at the beginning, the sooner they can get started with their inquiry.

16.30 Debrief of the day & reflection.

Please make sure the following reflection information is gathered:

- For participants choose: [SWOT](#), exit activity,
- As facilitator use this [Workshop reflection diary](#)

Feedback for the coach:

- Again, ask participants the following questions, some of them rhetorically; make sure you have an online form to let participants express their opinions/ answers
- Do we know each other better than when entering?
- Did we learn something from others that is more than “nice to know”

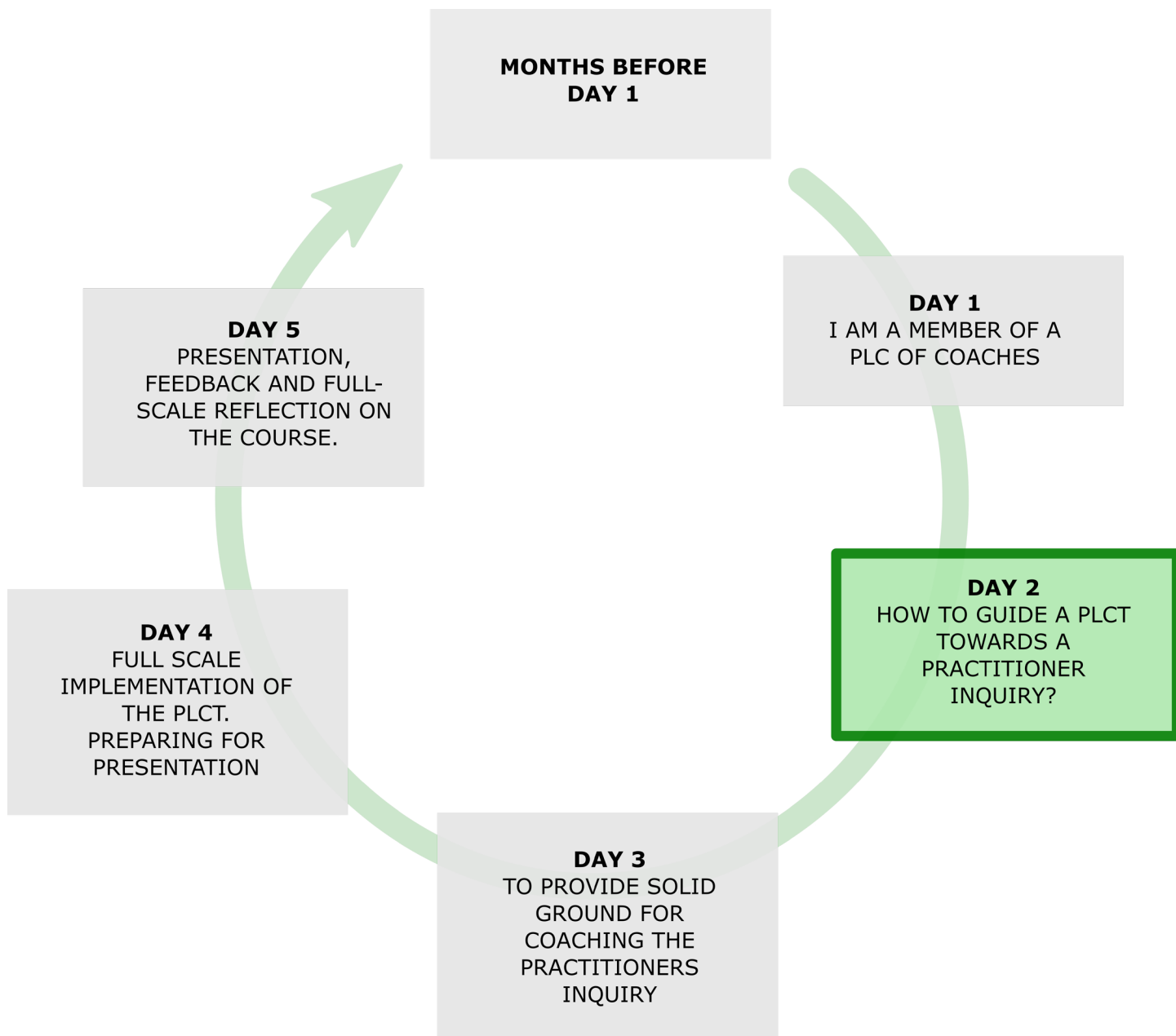
- Do you think this group is capable of learning together?
- What did you learn about yourself?
- Is there a certain trust in the group?
- Why using protocols?
- Was the learning useful in view of being a coach?
- Read the feedback tonight and use the reflections tomorrow (also, if a paper version of feedback is used, take them and read them through.
- Make sure participants keep their own notes in the guide.

16.30 Reflection: write your personal remarks and learnings of the day in the following box:

A large, empty rectangular box with a black border, intended for the user to write their personal reflections on the day's activities.

DAY 2

How to guide the PLC towards a practitioner inquiry?



The facilitator also reflects

- Personal reflections as facilitator on workshops, at the beginning, during and after the workshop are important data too
- Use the reflections of members of the PLC to trigger your own PI
- Use all reflections to develop next workshop
- Summarize all reflections at the end of a cycle to motivate for next cycle.

Motivation as facilitator

Organise sustainable self- learning

- Exploring the problem space as coach: always use feedback and self-reflection
- Discover PI as a professional learning tool, and discover a focus for your PI
- Formulate your inquiry question
- Keep your passion for coaching: train yourself in asking questions
- Organize the next workshop: goals, protocols, reflection
- Study possible schemes for workshop 2 and workshop 3

9.00 Icebreaker

Block Party on PI (see V3G for the protocol, select only the 8 boxes on PI, handout 2 boxes per participant). After reading the quotes, the party can begin. Facilitators should bear in mind that they also need to carry out a PI.

Advice for the coach:

- Make participants remember to exchange names
- Take each box separately and copy it 2-3 times on 1 page, then print it preferably each of them on different colours of paper, so that participants can see if the other has different colours.
- As two colleagues meet, they choose only one box to exchange.
- The number of rounds depends on the number of participants and how good the exchange is.
- The overview phase at the end is the starting point for the rest.
- Remind teachers of the fact that they are in this group to carry out a PI.

9.30 Summary of day 1

Agenda of the day, norms and values of yesterday, results of feedback, ideas on schemes for 2 workshops

Advice for the facilitator:

- If the agenda is changed because of feedback, make it visible on the screen.
- Make sure participants are aware that you read the reflection file
- Ask if they still agree on the rules or want to add something.
- Ask about practicalities: is everything all right? (online activities for example)

9.45 The Gardner versus Farmer protocol

See [Volume 2](#) for this protocol.

10.15 Quick overview of the PI cycle using a presentation

LINK to presentation on PI in [Volume 2](#)

10.45 Break

11.15 Kinds of PLC (Types of PI in PLC)

- 5 min of reading

Extra information: homogeneous, heterogeneous PLCs: mixed or not, how mixed?

Example: all teachers or also with head, the same discipline or transdisciplinary groups; also, same age group of students or different age groups.

- 6 min: Individually imagine situations, contexts for each of the 3 kinds of PLCs, add mixed or not mixed versions.
- in groups of 3 or 4: exchange for each of the kinds your ideas: 3 min per kind.

Feedback:

- The teachers that are motivated to work as a PLC should get the maximum out of it. Choosing the kind of PLC can be extremely important for input and outputs of the PIs. Careful consideration is important.
- Be open and ask the teachers' opinion on what kind would be best for the PLC
- Make sure the PLCT agrees on it.
- This agreement should not be forced, it can need some time before teachers really understand the consequences of their choice
- Leave the option open for a change later.

12.15 The use of protocols by a facilitator

Think: Every participant chooses one protocol from the appendix.
He reads it slowly and notes on the fly characteristics of the protocol concerning
Why a protocol?
How is it done?
What can go wrong, what can be changed, what preparations are needed?
What is the role of the facilitator during the process?

Share: In groups the findings are discussed, differentiated according to the different protocols chosen

Exchange: Generate generic findings (valid for all protocols)

The generic findings are written on a poster.

Feedback:

- Confront the text with what you experienced so far.
- The above activity is not written down as a protocol. But it is such that the Think-Share-Exchange format is present, that all participants always are engaged, that there is a learning outcome on which all agree.
- It shows the strength of a protocol: existing can be sued, changed but new ones can easily be developed too, serving a specific goal (like in this example).

13.00 Lunch

(two volunteers are asked to facilitate the litmus test activity. They need to take turns in the 7 questions of this "test".)

14.00 Result: overview of the 2nd workshop of the PLCT course

Possible goals for the second workshop of the PLCT course: The PLCT

- PLCT members express their needs
- Summarize all reflections at the end of a cycle to motivate for next cycle.
- Maintain the motivation of the PLC: learn to ask questions
- Get to know each other better, warming up, ice breaker, what did we learn the previous workshop
- Refine and elaborate collaboration
- Implement workshop plans
- Familiarize with PI
- Keep the passion for their job, formulated in their inquiry question
-

The second workshop of your course

Recommended scheme (soon after the first workshop)

- *If this is a separate moment:*
 - *Icebreaker*
 - *Conclusions of feedback*
 - *Goals of the workshop*
- Introduction to PI: The gardener vs farmer protocol
- What is PI, overview of the PI process question-data-analysis-conclusions- improved results of students-change of practice. LINK to PI book
- What kind of PLCs exist? What does this PLC want?
- Protocols: what, why, how?
- Reflection: 2 kinds of reflection
 - where members of the PLCT reflect on the workshop: describe their own learning (personal notes), and give feedback to the facilitator (online feedback tool?)
 - where facilitators reflect on today's course elements and relate to how they would use when conducting their own PLC (must be written down - so you can tell them you used their input to adapt the course)

14.20 Generating an inquiry question by the coach

5 min. Based on yesterday's "Passion protocol for the coach", which was your passion?

Imagine your own PLC context- if you do not have a real PLC in mind, imagine one, a realistic one, or put yourself in the situation of an imagined coach: which question would you have about your practice as facilitator of a PLC? How will the answer to your question make you learn? What will you learn from it?

Training moment for two participants 1 and 2 as facilitators: take the PowerPoint, the Questions, and participants the work sheet. Facilitator the Litmus test.

15.00 Reflection moment of participants

- on the litmus test related to their inquiry question.

- on the coaching by the 2 colleagues

- especially **participants 1 and 2 reflect on their experience and share their learning.**

This is led by **participant 3.**

Feedback for the facilitators

- The two facilitators were confronted with a challenge: not prepared, limited preparation time, taking the floor
- They needed to be supportive (PLC, also the colleagues took that into account)
- Out of comfort zone, learning moment
- Also make teachers take the floor sometimes, for example for a small presentation to the whole group, or representative of a smaller group.
- During this facilitator we will give all participants to take the floor, at least once.

15.15 Short break

15.30 Discussion on the 3rd workshop, the initial steps of a practitioner's inquiry.

- Take groups of 4
- Discuss the following scheme, with the following questions as guidelines: (take the questions one by one, divide the time over the questions beforehand- appoint a timekeeper)
 1. Take the icebreaker for granted.
 2. How do you imagine coaching a PLC whose members are starting a PI?
 3. Which goals would you formulate for the workshop?
 4. Look at the protocol "The 7 ways to get started with the 10 mind frames of J. Hattie" and rethink how it can be used to generate an inquiry question
 5. Are the protocols used relevant? How to change them? Which questions would you ask?
 6. What preparations are needed for this workshop?

The third workshop of your course

Recommended scheme

- Review previous workshops - What did participants learn? What were the norms and values? What did the feedback tell us?
- Setting new goals for this workshop
- Icebreaker: PLC: [Compass protocol](#) (30 mins)
- PLC: using academic research to start a PI: "The 7 ways to get started with the 10 mind frames of J. Hattie" lead to the initial inquiry question LINK to GUIDE
- PI: Initial Inquiry Question
- PI Litmus test on initial inquiry question
- Examples of PI focus on questions and focus on help questions formulated prior to the actual research; one example of LS.
- 2-level reflection (if only one workshop, not two consecutive ones).

16.30 Debrief of the day & reflection.

Please fill out the following forms:

- For participants choose: [SWOT](#), exit activity
- As facilitator use this [Workshop reflection diary](#)

Strategy: participants, 4 and 5 are dismissed: they prepare together how to facilitate the Compass protocol the next morning.

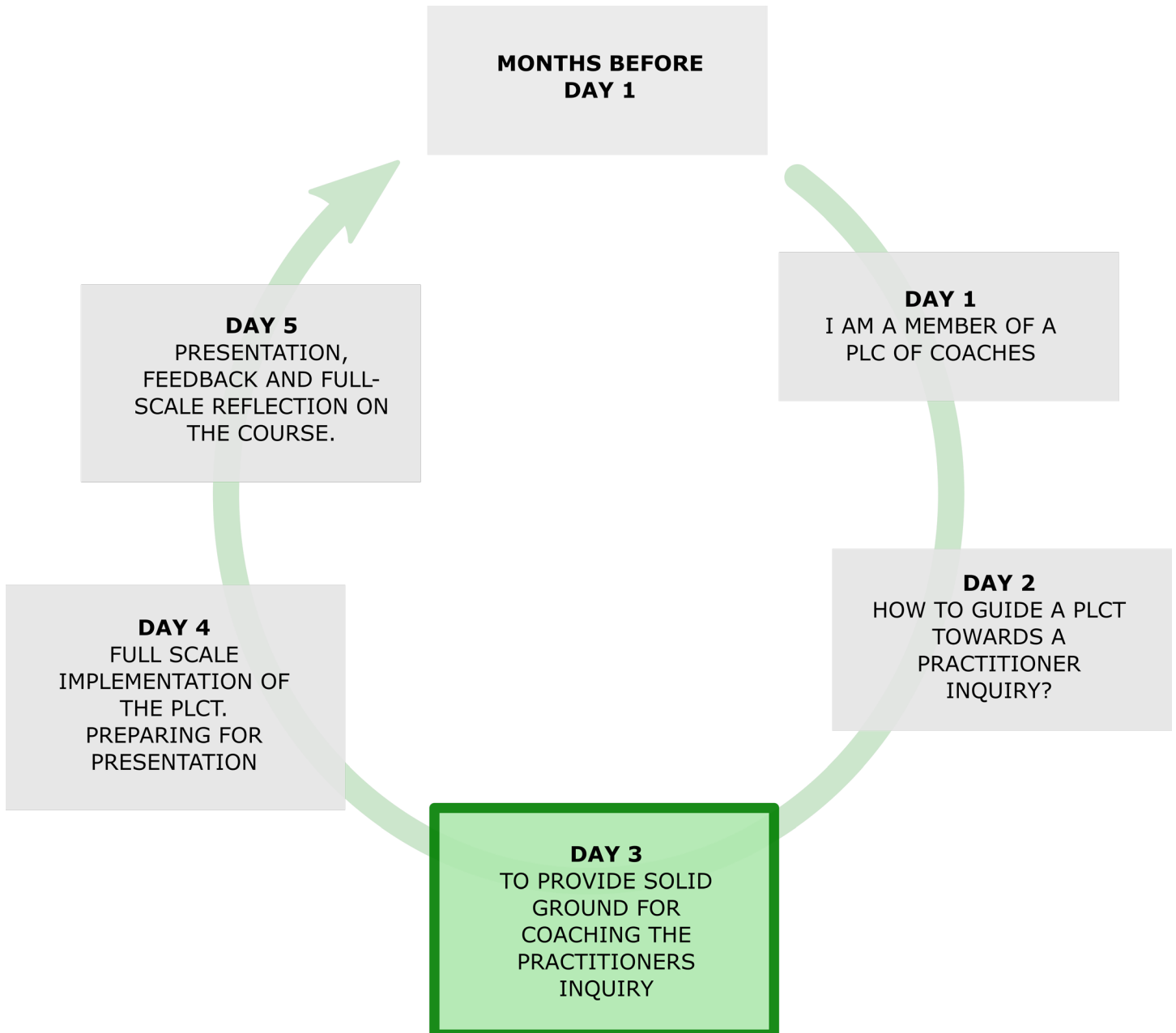
Advice for the coach:

- Read the protocol carefully
- Have the PLC in mind (numbers, location, setting, can people walk easily from one side to the other)
- While reading look what extra preparation you need to facilitate it in a smooth way (Here for example: make papers indicating North East South West, to put on the walls)
- Think about how the participants will get to know the characteristics of each compass point (print on paper, project, ...)
- How will you keep the timing?
- How will you appoint a spokesman for every group?
- Think about the timing: will it be possible to do everything during the protocol, within the given time? What can be dropped?
- How will you wrap up the protocol? What does it mean here the debriefing?

Reflection: write your personal remarks and learnings of the day in the following box:

DAY 3

To provide solid ground for coaching the practitioners inquiry



PLC: why is learning in a group effective

- Drawing conclusions from data:
Facilitators in their PLC need to continuously monitor the feedback of the PLC: this is also a data analysis activity
- Learn to ask questions
- Create a doable inquiry plan
- Gather feedback on your inquiry plan
- Refine inquiry plan
- Working with data
- Facilitators of a PLC need to work with data
- The facilitator organises an activity for teachers in PLC to analyse conclusions of others
- Study possible schemes for workshop 4, 5 and workshop 6
-

9.00 Icebreaker

Compass points protocol: for advice see Tuesday 16.30.

Debrief: participants 4 and 5 reflect on their experience and share their learning.

9.30 Agenda of the day, norms and values, results of feedback, where are we?

9.35 Asking questions

Activity in Appendix on page 91.

Strategy: Participant 6 will lead the discussion

Optional: role play: exercise.

1. One colleague plays the role of desperate participant to the course.
2. In pairs, after each “answer” of the desperate, they formulate a next question in 1 minute, written, in silence. A facilitator appoints which pair can ask his question. The desperate participant answers again, next round.

Strategy: Participant X will lead the discussion

Feedback for the coach:

- Experienced facilitators value the art of asking questions a lot
- In principle always ask clarifying questions first, then probing questions (safety, trust, good overview on the context first)
- Asking questions can serve many goals: shift ownership to the participant, putting him on track again, motivate him, give him a wider view.
- Asking questions is important for all educators: for facilitators to run a PLC, for teachers in a PLCT to ask their peers, for teachers to ask their students, for students to ask their peers too.
- Two pitfalls show a tension: Not asking questions and always give “the” answers versus always asking

questions and never give input. The solution is halfway: give participants as many opportunities as possible to find solutions themselves, but if they would become desperate, give one solution to build on.

- A nice present would be a plasticized fiche with both kinds of questions
- Always have a plan B in case time is miscalculated.

10.10 Examples of inquiry questions:

- of teachers
- of facilitators

10.15 Peer feedback on inquiry question

The What?, So what? Now what? protocol

Strategy: Participants 7 and 8 will facilitate this protocol.

Advice for the coach:

- Use PowerPoint presentation.
- Keep the timing strict, keep it in your own hands, especially in the beginning, when participants are not yet used to it.

Debrief: participants 7 and 8 reflect on their experience and share their learning.

11.00 Break

11.25 Formulate your observations as facilitator in your own learning document

- what did you learn from your colleagues
- what shared learning was interesting

11.30 Easy data gathering protocol

Follow the Easy data gathering protocol

Strategy participants 9 and 10 will lead this protocol.

12.28 Debrief: participants 9 and 10 reflect on their experience and share their learning. They focus also on aspects related to this protocol.

12.30 Lunch

13.30 Small inquiry plans to guide your practitioners inquiry

- **Prototyping**
- **First part of shared inquiry**
- **Examples**

14.15 Data gathering plan of the tutors of this course, data from participants of this course

After 2,5 days, what are the needs of the participants of this course in order to become a better coach?

Data gathering plan:

- Participants analyse in groups of 3 (members A, B and C) the 3 upcoming workshops of coaching their PLC. This will be done in parallel, so that each group works independently and generates its own output
- They detect and formulate questions and needs individually, discuss in the group of 3, and draw conclusion on needs and remarks
- They upload these on a Google forms document/ they write down their findings on 3 different poster papers, for each workshop one poster.
- (Tomorrow the same question is valid for workshops 7-9).
- All needs will be analysed later today and then the tutors will prioritize. There are 3 hrs foreseen to dig deeper into these needs (either Thursday afternoon or Friday morning).
- +
- 3 interviews with participants

14.30 Discussing the 4th workshop

Strategy: Participant 11 will lead the discussion

Advice for the facilitator:

- Read the protocol carefully

PI as member of a PLCT

Improve your practice

- Connect motivation to focus/ wondering/question
- Formulate your inquiry question
- Gather feedback on inquiry plan
- Learn how to observe objectively, and how to collect other kinds of data
- Formulate a small inquiry question, with data easy to gather, and doable in a short time

PI: Sharing Element

Sharing is the start of something new

- Lessons for your practice in the future
- Learning from others work and conclusions
- Refine inquiry plan after feedback of your peers
- Optional: Find your Critical Friend
-

Recommended scheme

- **PLC: The art of asking questions: What are clarifying and probing questions**
- PI: Developing your inquiry question (Peer assessment using probing and clarifying questions): The What?, so what?, now what? protocol
- PI: Adapt your initial question or split it in several smaller questions. Then: formulate one simple question that you would consider helpful in view of your inquiry; interesting to know before you can really start your inquiry.
- PI: Easy data gathering protocol: preliminary choice of data linked to the inquiry question
- PI: Review the examples of PI given with focus on data: new protocol needed that gives the kinds of data, when they are collected, how they are linked to the initial question, and how they give proof of the learning of the students. We need A3 format posters of some of the PIs.
- PI: Choose data to collect for you preliminary inquiry (simple question inquiry) and its data collection mini plan.
- PLC: Reflection where facilitators reflect on course elements in this day of the workshop and relate to how they would use when conducting their own PLC
- PLC: Comfort Zone (ticket to leave exercise)
- Confidence in creating and sustaining a PLC
- Confidence in completing a PI
- 2-level reflection (if only one workshop).

14.55 Discussing the 5th workshop

Strategy: Participant 12 will lead the discussion

Analysing data by members of the PLCT

Drawing conclusions from evidence

Realistic and useful exercise

- Working with data
 - Teachers in PLC need to work with data
 - Facilitators in their PLC need to do it
- Drawing conclusions from data
 - Teachers in PLC need to draw conclusions from data
 - Facilitators need to facilitate it
- Analysing conclusions of others
 - Teachers in PLC need to analyse conclusions of others
- Create a doable inquiry plan
- Refine inquiry plan after feedback of your peers

Recommended scheme

- PLC: Icebreaker
- PLC : What?, So what? Now what? protocol
- PI: Data Collection for PI (see case study of PLCC in [Volume 4](#))
- PI: [Data Analysis Protocol - Tom Loneragan Vignette](#) using the [Data Driven Dialogue Protocol](#) / [ATLAS](#) Protocol imposed, used for the data collected on the simple question of each individual/ LS
- **PI: Additional Data Analysis Advice**
- PI: Presentation exercise: their mini inquiry
- PI The updated PI plan
- Inquiry brief feedback protocol
- PLC: Reflection where facilitators reflect on course elements and relate to how they would use when conducting their own PLC

15.20 Discussing the 6th workshop

Strategy: Participant 13 will lead the discussion

PI: Sharing Element

Sharing is the start of something new

- Lessons for your practice in the future
- Learning from others work and conclusions
- Create a doable inquiry plan
- Gather feedback of peers on your inquiry plan
- Refine inquiry plan

Recommended scheme

- PLC: Learning from literature
 - Participants read [Timperley](#) document using the Jigsaw protocol. Participants develop a consensus on recommendations for PLC building
- PI: Peer Review of Inquiry Plans: The Inquiry brief feedback protocol.

Debrief: participants 11, 12 and 13 reflect on their experience and share their learning.

15.45 *Discussing the results of the survey: **data analysis protocol***

3 mixed groups (all members A in a group, B's in another group and also C in a new group) in parallel, discussing each one of the 3 workshops.

Tutors facilitator

16.40 *Summary of needs after the discussions*

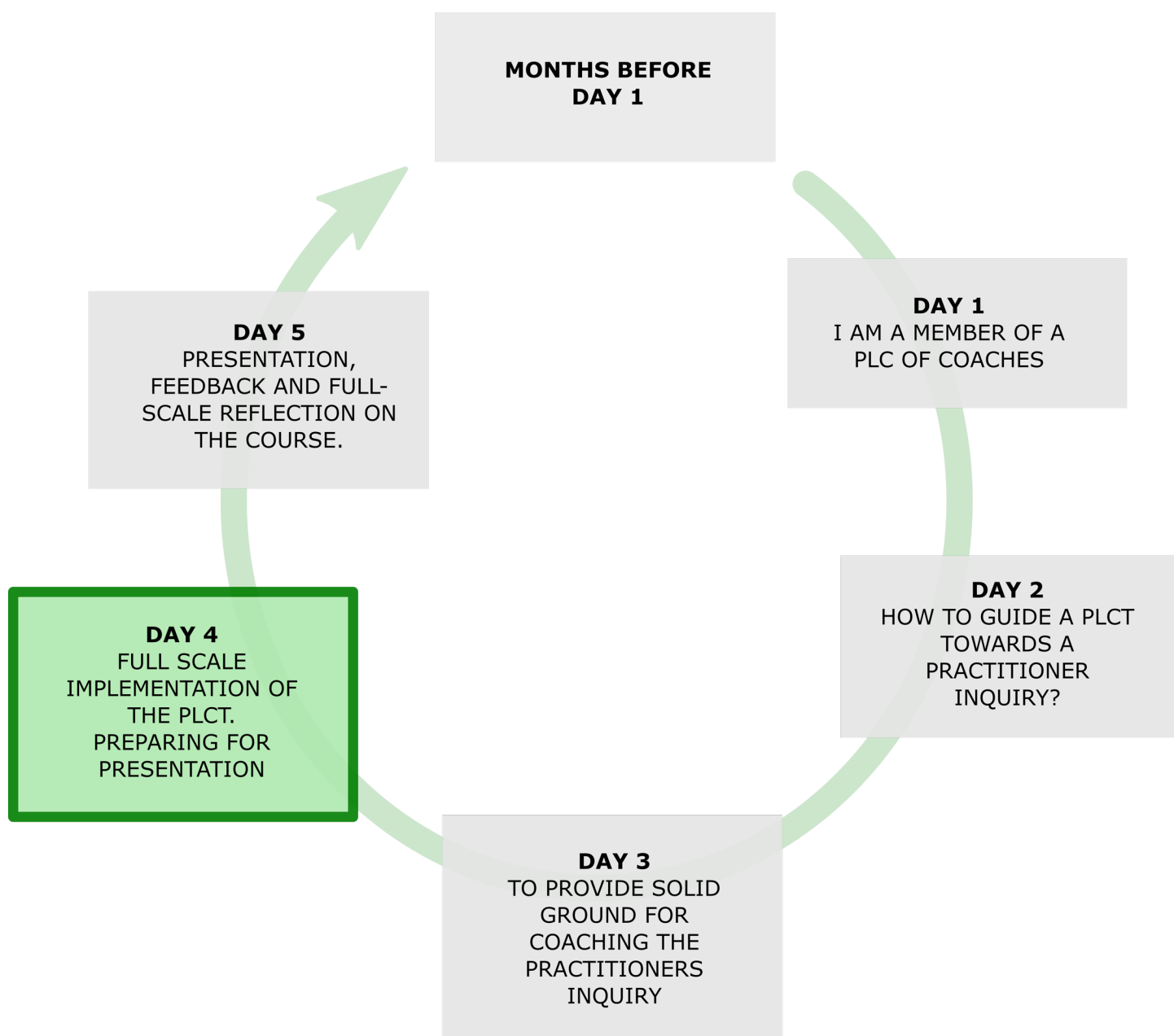
Tutors prioritize

16.50 *Reflection*

Write your personal remarks and learnings of the day in the following box:

DAY 4

Ful scale implementation of the PLCT Preparing for presentation



9.00 Icebreaker

- Comfort zones for the following topics:
 - Confidence in creating and sustaining a PLC
 - Confidence in completing a PI

Strategy: participants 14 and 15 will lead this protocol

Debrief: participants 14 and 15 reflect on their experience and share their learning.

Feedback for the coach:

- Read the protocol carefully

9.30 The small inquiry of the facilitator as reflection moment

What are the needs of the participants of this course in order to become a better coach?

Chosen data: see yesterday plus 3 interviews of participants.

Analysis of the survey leads to the following priorities:

- (A)
- (B)
- (C)

10.00 Analysing data: Tom's case

Tutors facilitate

10.25 Explanation for this afternoon

3 options

=> 14.30 – 16.30 Elaborate needs A, B, C

=> 14.30 Action plan

10.30 Break

11.00 Discussing the 7th workshop

Strategy participants 16 and 17 will lead this protocol of discussing 7th, 8th and 9th WS.

Advice for the facilitators:

- Read carefully which activity is organised
- Look for a proper protocol that is usable in this context.
- Adapt it in view of the situation: number of participants, their prior experience, prior protocols (make it different, also different grouping), setting of the room, papers used, presentations used, needs analysis only 20 min.
- Prepare for strict timing (option: if you can trust people, they can keep their own timing, provided you communicate it beforehand)

Members in groups of 3 are numbered D,E,F

Inquiry as a facilitator

Teach as you preach

- Connect motivation to focus/wondering/question
- Formulate your inquiry question
- Optional: Find your Critical Friend
- Learn how to observe objectively, and how to collect other kinds of data
- The facilitator can give an example of a small inquiry he carried out on the members of his PLCT: small question, simple data, simple analysis leading to a clear, basic conclusion

The seventh workshop of your course

Recommended scheme

- PLC: Review Comfort Zone from previous workshop (including the 'Other' issues)
- PLC: Politics of a PLC
- PLC: Adapting Protocols
- PLC: Reflection where facilitators reflect on course elements and relate to how they would use when conducting their own PLC

11.20 *Discussing the 8th workshop*

Inquiry as a facilitator

Teach as you preach

- Learning how to create a poster / presentation
- Presenting and Sharing

The eight workshop of your course

Recommended scheme

- PLC: Designing a schedule for building a PLC and the PI training the participants will deliver
- PLC: Peer Review of participants' PLC schedules

11.40 Discussing the 9th workshop

PI: Sharing Element

Sharing is the start of something new

- Lessons for your practice in the future
- Learning from others' work and conclusions

The ninth workshop of your course

Recommended
scheme

- Presentation of all PI, using plenary or poster format
- Reflection: what did the peer-teacher learn
- How did the results of the students enhance- is the evidence valid?
- What do I learn from my peers?
- What can I do with this learning?

12.00 Needs analysis

Conclusion: Needs D, E and F are formulated

Debrief: participants 16 and 17 reflect on their experience and share their learning.

12.30 Lunch

13.30 Timperley's text

“Teacher professional learning and development” using the **jigsaw protocol**.

Strategy: participants 18 and 19 will lead this protocol

Advice for the coach:

- Read the protocol carefully, the jigsaw protocol is new.
- Think of what participants would need to carry out this protocol (on the given text).
- Think of grouping, or how to spread the jigsaw: 10 pieces, because 10 chapters, or as many as there are participants, clustering along the chapters.
- Think of other activities during the course in which this protocol could be used.

14.30 Differentiation: 3 options

From 14.30 – 16.30 the participants in small groups elaborate alternative schedules/workshop schemes, aiming at (some of) the needs A, B, C, D, E, F. There are 3 options (or more) and each option should be addressed.

14.30 Action plan

Action plan 1st kind:

Participants put together a plan for their own PLCT course

- Explain your context
- Give an overview of 6-10 workshops of workshops
- Establish max 2-4 goals for each workshop
- Choose protocols and explain possible adaptations
- Explain how you will integrate your inquiry (how, which and when data collection)
- Explain your feedback and reflection methods
- Make a presentation (paper poster, PowerPoint, ...) of 8 min (to be presented tomorrow)

Action plan 2nd kind:

- Make a summary of your personal learning
- Explain how it will change your practice
- Elaborate some learnings in concrete actions
- Make a new protocol in which you express your learning in a new kind of activity
- Adapt a protocol in such a way that it serves a new goal
- Make a presentation (paper poster, PowerPoint, ...) of 8 min. Also 2 min of feedback (questions, remarks, ...) are foreseen.

Action plan 3rd kind

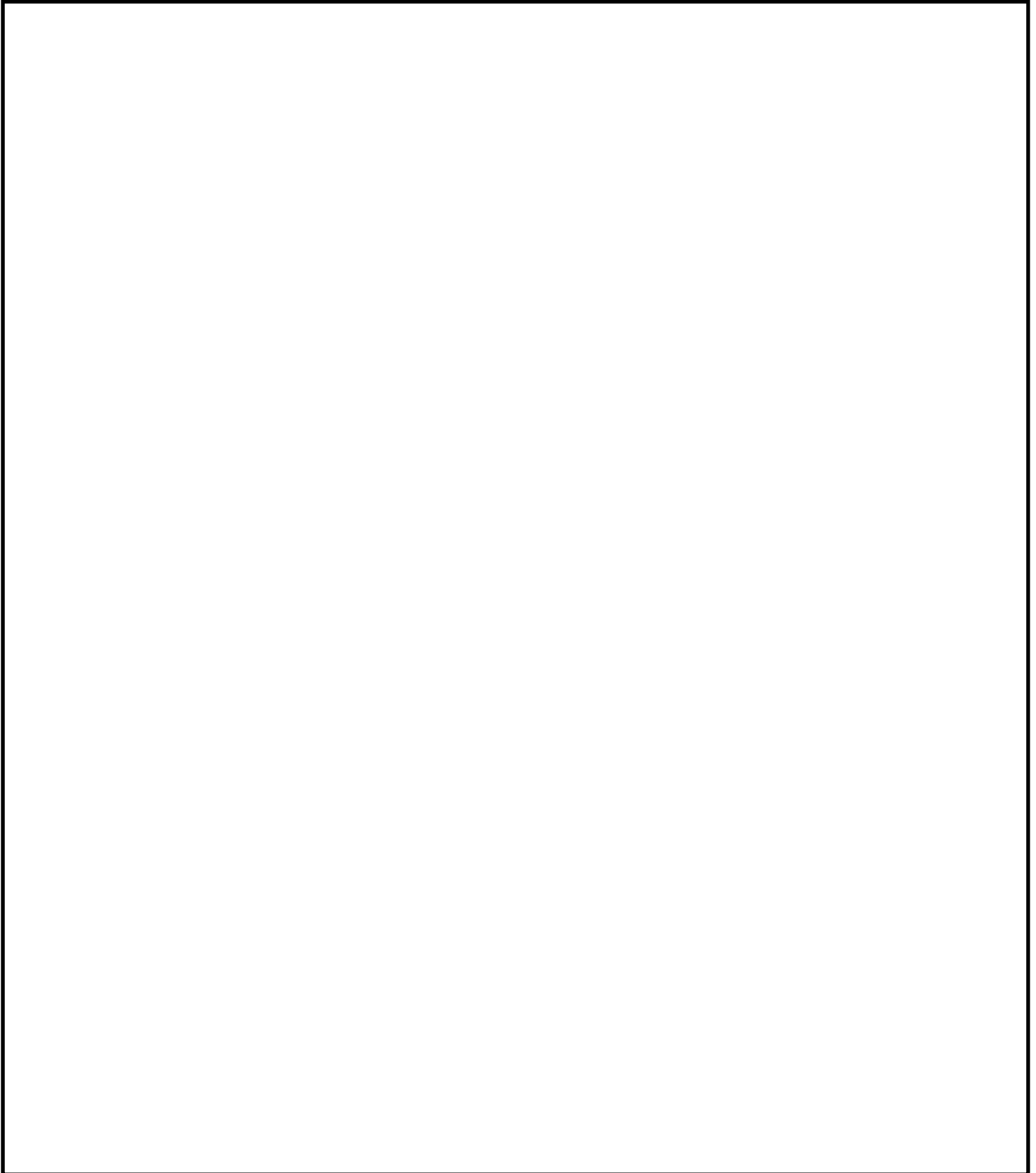
- Read the Case Study on the PLC of facilitators.
- Combine the given course with the reading of the Case Study and develop as output an “ideal” 5 day course, combining the best of both in a new one, evidently taking into account your own alternatives for certain activities.

Advice for the coach:

- There are many representations for action plans.
- Use maybe this information sheet to inspire people.
- Although you, as facilitator might have your own view on how an ideal scheme should look like, one of the aims of this session is exactly to take into account the needs of your PLC members and adapt the course accordingly.
- [Via this link](#), you can read a protocol to help you choosing protocols and strategies.

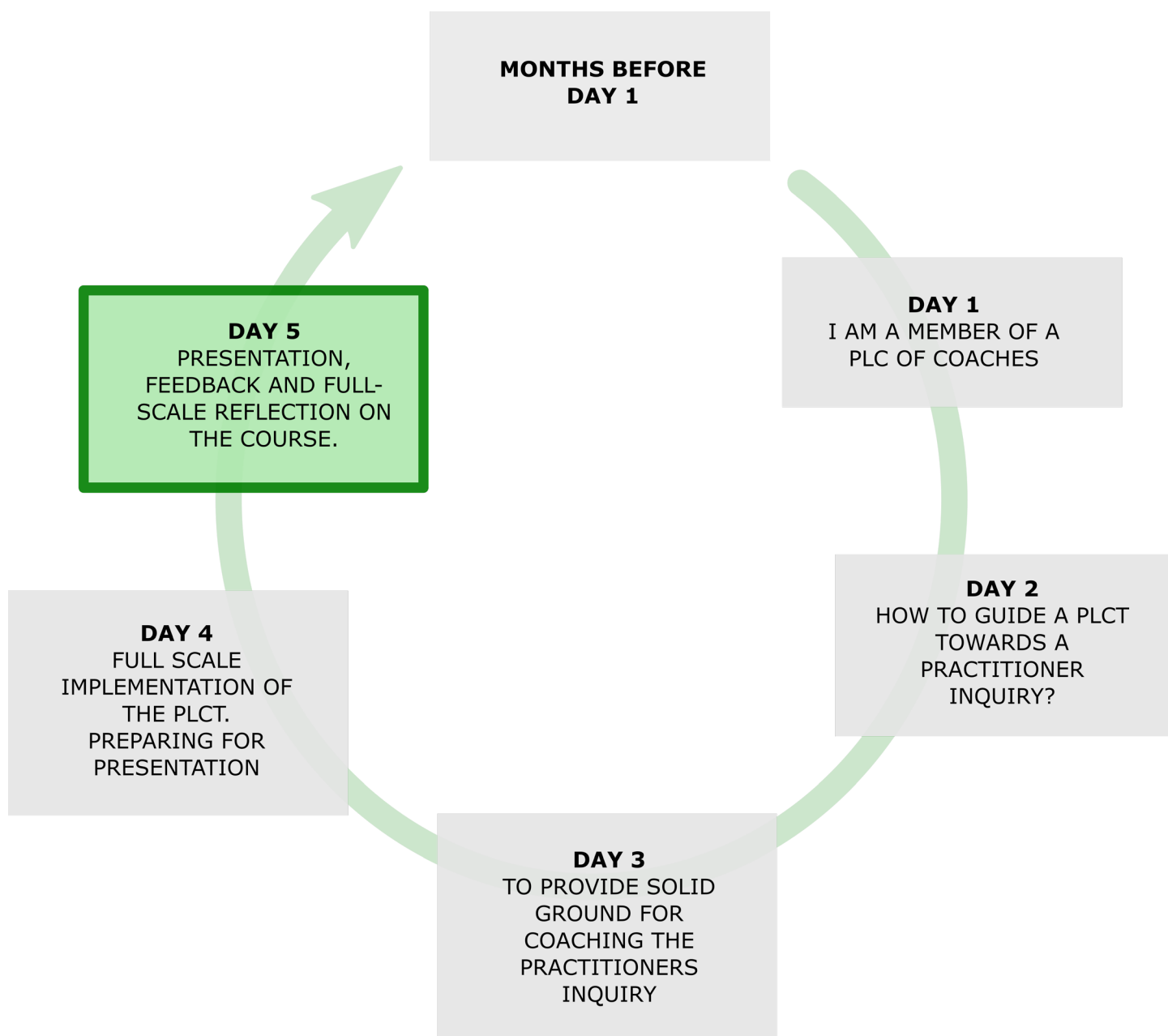
16.30 Reflection

Write your personal remarks and learnings of the day in the following box:

A large, empty rectangular box with a black border, intended for the user to write their personal remarks and learnings from the day.

DAY 5

Presentation, feedback and FULL-SCALE reflection of the course



9.00 Icebreaker

9.15 Plan of the day

2 options

=> Elaborate (some of) needs A, B, C, D, E, F: for example, develop another schedule or study of an alternative schedule for a 5 day PLC which is given on page 92.

=> Action plan

10.30 Break

11.00 Plan of the day (continued)

=> Elaborate (some of) needs A, B, C, D, E, F for example alternative schedules

=> Action plan

11.30 Presentations of 6 action plans (mixed kinds)

12.30 Lunch

13.30 Presentations of 6 action plans (mixed kinds)

14.30 Presentations of 6 action plans (mixed kinds)

15.30 Overview 10th workshop

The tenth workshop of your course

Recommended
scheme

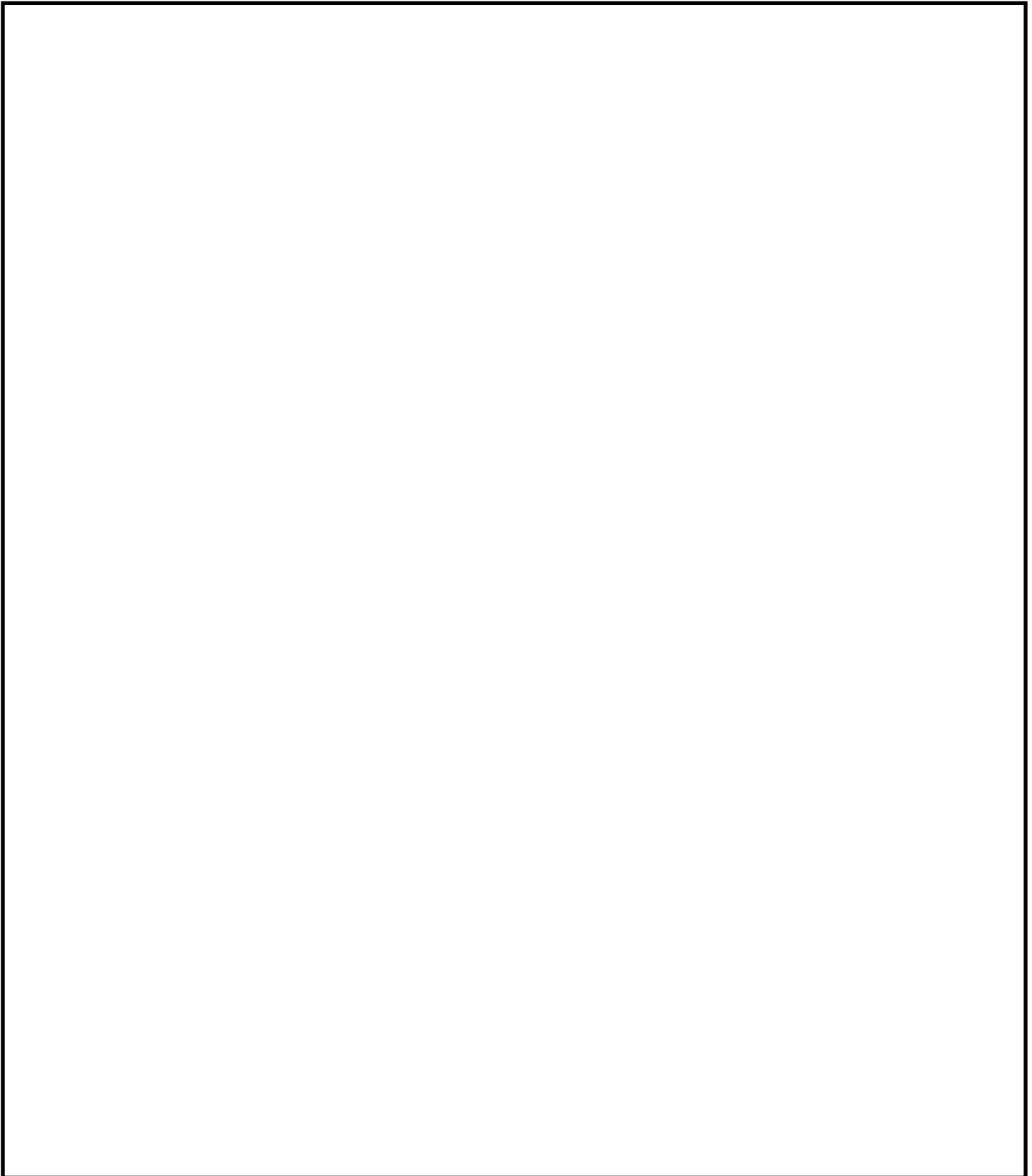
- Course reflection - SWOT
- Discussion of SWOT
- Next steps: plan for next year

15.45 Survey, SWOT, learning

16.15 Celebration

16.30 Reflection







Write your personal remarks and learnings of the day in the following box:

A large, empty rectangular box with a black border, intended for the student to write their personal remarks and learnings from the day.

ADDENDUM FOR THE COURSE

GROUPING WITH LOTTERY TICKETS

In this attachment “lottery” tickets are developed for the participants to the course. Giving each person one ticket, it gives the tutor/facilitator the chance to organise grouping fastly. The grouping done is this way is randomly and changing all the time to make sure everybody collaborates with as many other participants as possible. However: sometimes grouping serves a specific goal, grouping can be done in a way as to have specific persons collaborating (same school, same discipline, same or analogous PI).

 1 a A  24 [?][?][?][?]	 2 b B  23 [?][?][?][?]	 3 c C  22 [?][?][?][?][?]	 4 d A  21 [?][?][?][?][?]	 5 e B  20 [?][?][?][?][?]	 6 f C  19 [?][?][?][?][?]
 1 g B  18 [?][?][?][?]	 2 h C  17 [?][?][?][?]	 3 d A  16 [?][?][?][?]	 4 c B  15 [?][?][?][?]	 5 b C  14 [?][?][?][?]	 6 a A  13 [?][?][?][?]

 1 g C  12 [?][?][?][?]	 2 f A  11 [?][?][?][?]	 3 e B  10 [?][?][?][?][?]	 4 h C  9 [?][?][?][?][?]	 5 h A  8 [?][?][?][?]	 6 g B  7 [?][?][?][?]
 1 e A  6 [?][?][?][?][?]	 2 d B  5 [?][?][?][?]	 3 f C  4 [?][?][?][?]	 4 b A  3 [?][?][?][?]	 5 a B  2 [?][?][?][?]	 6 c C  1 [?][?][?][?]

All...	Number of groups	total
Numbers 1- 24		
All numbers 1 or 2, ... 6	6 (4 of each)	24
Group of 1-6	4 (sets of 1-6)	24
All different lower case a, or b, until h	3 groups of all letters a-h	24
All the same lower cases a,b,..	8 (3 of each)	
All pencils, ... together	6 (4 of each)	24
Group of different subjects	4 (of each 1 in the group)	24
All same A, B and C together		
All different	8 (3 of each)	

All different Greek letters [?][?][?][?]	4 Groups of 5 ps one only 4 missing [?]	
All the same Greek letters [?][?][?][?]	4 Groups of 5 ps one only 4 missing [?]	
All [?][?] or [?][?][?] or [?][?][?][?]	3 (8 of each)	
All [?][?] and [?][?][?] and [?][?][?]	8 (of all 3 letters)	

ASKING QUESTIONS ACTIVITY

Read this conversation:

Case study: 2 conversations

A There is no way I can do this task.
B Still not? You've been given a hand for a million times!
A I don't know... I cannot do it ...
B You are not persistent enough. You've always been like that.
A I cannot do it...
B Poor you! I also couldn't do it and then I thought of something positive and it worked. You should try it as well! It works.

A I cannot do it ...
B Where seems to be the problem?
A There is not enough time.
B Is there anything you could do about timing?
A Maybe in the morning, when I arrive and then just sit and do nothing really ...
B What could help you make a better use of your mornings?
A ... remind myself of how much I can do in this time.
B Anything else?
A And the fact that it will be easier when the task is finished.
B Has this strategy worked so far?
A In case of running ... it works!
B When could you use this experience?
A First thing in the morning!

Compare in triples the plusses and minuses of strategy of B in each conversation.

Read the Information sheet: What are clarifying and probing questions

Exercise: Decide which of the following are good (probing) questions:

1. What is a good result?
2. That affects you a great deal, doesn't it?
3. What makes you think that you must ...?
4. Where do you limit yourself?
5. Are you maybe afraid?
6. What is exciting for you in this?
7. What makes you think so?
8. What's in it for you?
9. What about if you try...
10. Have you ever thought of...?
11. I think this is leading to exhaustion. Is this about being neglected?
12. What is your goal? How can you achieve it?
13. What 's wrong? Why? Who 's fault is it?
14. Is this X OR Y?
15. What happened first? And next? How are these two connected?

OTHER SCHEDULE OF A SERIES OF 5 DAYS OF WORKSHOPS.

Morning 1	<ul style="list-style-type: none"> • PLC: Icebreaker Activity (P40) Getting to know each other • Baseline questionnaire - Gathering participants needs and expectations of the training and pre-knowledge. This could be in the form of a pre-survey • Outline of 3DIPhE and brief overview of PI • PLC: Sharing Practice - Consensogram Activity (P56 with P141)
Afternoon 1	<ul style="list-style-type: none"> • PLC: Developing Norms and values • PLC: Sharing your PLC - Participants (add link to protocol - DCU created one for their PLC) • PLC: Reflection where facilitators reflect on today's course elements and relate to how they would use when conducting their own PLC (must be written down - so you can tell them you used their input to adapt the course) • PLC: Agreeing communication within PLC (this will depend on course format; 1 week vs 10 months). This should focus on how they will use communication techniques with their PLC when the course is finished
Morning 2	<ul style="list-style-type: none"> • PLC: Compass Activity (30 mins) • PI: Research vs PI - including chalk talk and farmer vs. gardner (P125 and P13) • PI: Motivation Activity / Initial Inquiry Question
Afternoon 2	<ul style="list-style-type: none"> • PI: Provide examples of PI (these could come from literature but also from DCU PLCCI1 - we could create vignettes) • PI: Developing your inquiry question (Peer assessment using probing and clarifying questions) • PLC: Reflection where facilitators reflect on course elements in this day of the workshop and relate to how they would use when conducting their own PLC • PLC: Comfort Zone (ticket to leave exercise) <ul style="list-style-type: none"> o Confidence in creating and sustaining a PLC o Confidence in completing a PI o OTHER (Your decision)

Morning 3	<ul style="list-style-type: none"> • PLC: Learning from literature Participants read 1 Timperley document using jigsaw protocol. Participants develop a consensus recommendations for PLC building • PI: Review of their inquiry questions (If this is a longer course, you can assign pre-homework task) • PI: Data Collection for PI (P033 and slides - DCU PLCC)
Afternoon 3	<ul style="list-style-type: none"> • PI: Data Analysis Protocol - Tom Lonergan Vignette using the Data Driven Dialogue Protocol / ATLAS Protocol • PLC: Reflection where facilitators reflect on course elements and relate to how they would use when conducting their own PLC
Morning 4	<ul style="list-style-type: none"> • PI: Development of Inquiry Plans (Individual work) • PI: Peer Review of Inquiry Plans (Using Google Docs)
Afternoon 4	<ul style="list-style-type: none"> • PLC: Politics of a PLC • PLC: Adapting Protocols • PLC: Reflection where facilitators reflect on course elements and relate to how they would use when conducting their own PLC
Morning 5	<ul style="list-style-type: none"> • PLC: Designing a schedule for building a PLC and the PI training the participants will deliver • PLC: Peer Review of participants' PLC schedules
Afternoon 5	<ul style="list-style-type: none"> • Course reflection - SWOT • Discussion of SWOT • Flex time • Next steps

PART C: APPENDIX

LEARNING OUTCOMES:

PROTOCOLS SERVING AS ICEBREAKERS

PROTOCOL: DIFFERENT FIRST NAMES TO GET TO KNOW EACH OTHER
PROTOCOL: DIFFERENT CULTURES/GETTING TO KNOW EACH OTHER
PROTOCOL: COMPASS POINTS N E S W
PROTOCOL ICEBREAKER: USING QUOTES. A TEXT-BASED ACTIVITY
PROTOCOL ICEBREAKER: THE ZONES OF COMFORT

PROTOCOLS RELATED TO PLCs

PROTOCOL: PASSIONS FOR BEING A COACH OF A PLC (1)
PROTOCOL: PASSIONS FOR BEING A COACH OF A PLC (2)
PROTOCOL: CONSENSOGRAM
PROTOCOL: ATTRIBUTES OF A LEARNING COMMUNITY
PROTOCOL: FORMING GROUND RULES (CREATING NORMS AND VALUES)
INFORMATION SHEET: TYPES OF PI IN PLCs
PROTOCOL: BLOCK PARTY ON PROFESSIONAL LEARNING COMMUNITIES
INFORMATION SHEET: INQUIRY QUESTIONS FOR A COACH
INFORMATION SHEET: WHAT ARE CLARIFYING AND PROBING QUESTIONS
INFORMATION SHEET: PROTOCOLS: WHAT, WHY AND HOW?
PROTOCOLS: JIGSAW METHOD FOR READING TEXTS
PROTOCOLS: GUIDANCE FOR FEEDBACK USING BONOS HATS.
PROTOCOLS: THE FINAL WORD
SURVEY: IS YOUR PLC REALLY A PLC? HAS YOUR PLC ESSENTIAL ELEMENTS OF A HEALTHY PLC?

PROTOCOLS RELATED to Practitioners Inquiry Pi

PROTOCOL: 7 WAYS TO GET STARTED USING THE 10 MIND FRAMES OF J. HATTIE
MATERIAL AND PROTOCOL: INQUIRY BRIEF
PROTOCOL: WHAT? SO WHAT? NOW WHAT?
PROTOCOL: INQUIRY BRIEF PEER FEEDBACK
PROTOCOL: BLOCK PARTY ON PRACTITIONER INQUIRY
PROTOCOL: PEELING THE ONION- DEFINING A DILEMMA
PROTOCOL: CONSULTANCY
PROTOCOL: EASY WAYS TO COLLECT DATA DURING YOUR WORK AT SCHOOL
PROTOCOL: ATLAS FOR DATA ANALYSIS
INFORMATION SHEET: ADDITIONAL DATA ANALYSIS ADVICE

REFLECTION TOOLS

PROTOCOL: EVALUATION WITH THE HELP OF A PLUS-DELTA
PROTOCOL: FEEDBACK WITH THE HELP OF EXIT TICKETS
PROTOCOL: PAPER TWITTER

LEARNING OUTCOMES: IN THIS E-BOOK THE READER WILL LEARN TO:

1. complete a cycle of PI on their own practice of coaching teachers
2. identify problems and construct research questions
3. gather and critically analyse data linked to developed research questions
4. make evidence informed conclusions and recommendations linked to their research questions which will enhance their facilitation of PLCTs
5. highlight how their learning from the PLCC course can be used in their work with pre-service and in-service teachers
6. access relevant research literature to support their PIs and PLC facilitation
7. self-reflect and peer evaluate inquiries and coaching using agreed assessment criteria
8. use protocols as an effective strategy for developing coaching skills
9. describe and explore characteristics of professional learning communities;
10. engage in a PLC and support community members in their inquiries
11. select and use protocols to create effective PLCs
12. assemble a resource kit of protocols and other resources like a library of existing teaching materials which they can share with other facilitators and their PLCs
13. provide authentic feedback to members of their PLCs regarding their wonderings, curriculum, and educator dilemmas;
14. provide appropriate level of guidance to their PLC through scaffolding
15. support their PLCT to become reflective practitioners
16. develop a plan for translating the learning to facilitators' own contexts.
17. develop a wondering linked to facilitation of PLCs
18. access relevant literature
19. gather data on their wondering
20. develop a plan to address wondering
21. analyse and critique data related to their PI
22. self-reflect and peer evaluate their PIs
23. make evidence informed conclusions and recommendations linked to their wondering to enhance their facilitation of PLCs
24. work collaboratively to support members of the PLC to conduct a PI
25. set up a method of communication to collaborate and communicate with members of the PLC
26. create an openness to professional collaboration
27. Support their PLCs to know each other both professional and personal



PROTOCOLS SERVING AS ICEBREAKERS

PROTOCOL: DIFFERENT FIRST NAMES TO GET TO KNOW EACH OTHER

PROTOCOL: DIFFERENT CULTURES/GETTING TO KNOW EACH OTHER

PROTOCOL: COMPASS POINTS N E S W

PROTOCOL ICEBREAKER: USING QUOTES. A TEXT-BASED ACTIVITY

PROTOCOL ICEBREAKER: THE ZONES OF COMFORT

PROTOCOL: DIFFERENT FIRST NAMES TO GET TO KNOW EACH OTHER

Purpose of the protocol

Connections/ice-breaking activity/getting to know each other/talking about different countries and cultures. It is best to use it at the beginning of a workshop or at the first PLC workshop. This activity enables the participants to get to know each other a little bit better. If they are from the same cultural background/school, the topic could be hobbies or special interests. They can also discuss what challenges/issues confront teachers in their subject/schools etc.

Materials

Nothing

Time

10 min./ as long as is opportune

Roles

- Facilitator
- Participant/student
- PLC

Process

Steps:

1. The facilitator invites the participants to reflect on their own first name: what is this name, where does it come from, who gave you this name and why? What are your nicknames?
2. The group of the participants get an ad random number or letter. First volunteers are invited to take the word and explain about “the story of their first name” , later, if the atmosphere permits, ad random choice is opportune.

PROTOCOL: DIFFERENT CULTURES/GETTING TO KNOW EACH OTHER

Purpose of the protocol

Connections/ice-breaking activity/getting to know each other/talking about different countries and cultures. It is best to use it at the beginning of a workshop or at the first PLC workshop. This activity enables the participants to get to know each other a little bit better. If they are from the same cultural background/school, the topic could be hobbies or special interests. They can also discuss what challenges/issues confront teachers in their subject/schools etc.

Materials

Pictures, photos of their own country/hobbies/special interests (landscape, symbols, cultural sights, culinary tradition..). It could also be a picture of their school (the entrance for example), their class room, or a special activity/event at their school.

Time

10 min.

Roles

- Facilitator
- Participant/student
- PLC

Process

Steps:

1. The facilitator invites the participants to find and talk to somebody they don't know or don't have the habit to cooperate with on the regular basis.
2. The group of the participants mingle and everybody talks to somebody they didn't know before or didn't cooperate before. With the help of the item brought to the workshop they tell the partner something about themselves, then they switch roles.

References

Lesničar, B. (2017), Different cultures. Ljubljana: Zavod RS za šolstvo

PROTOCOL: COMPASS POINTS N E S W

Sources

Sue Horan, June, 2007, School Reform Initiative website:
http://schoolreforminitiative.org/doc/compass_points.pdf

Purpose of the protocol

This is a group building activity, not to be done at the first time that a group meets each other but still rather in the beginning of the group forming process.

Similar to the Myers-Briggs Personality Inventory, this exercise uses a set of preferences which relate not to individual but to group behaviours, helping us to understand how preferences affect our group work.

The protocol also stimulates mutual understanding of people's learning process and attitude in given circumstances.

Materials

Prepare 4 chart board (or equivalent) cards with written N, E, S, W put in the different directions N, E, S and W; please try to do that adequately – look at the position of the sun at a given moment.

Time

25 - 50 min, depending on to what extend the facilitator organizes the discussions.

Roles

Facilitator, whole group, then 4 groups.

Process

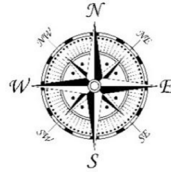
The room is set up with 4 signs on each wall — North, South, East, and West.

If the group is small, then it might be necessary to rearrange the protocol in such a way that still all different behaviours can be explained to one another.

1. The facilitator gives an overall introduction of the protocol:
 - What are the goals;
 - What is the process.
2. The facilitator briefly characterises the 4 directions, as follows: (he has additional information here below - see below: 'Compass Points Explanations Expanded');

North
Acting — “Let’s do it”;
likes to act, try things, plunge
in

West
Paying attention to detail —
likes to know the who, what,
when,
where and why before acting



East
Speculating — likes to look
at the big picture and the
possibilities before acting

South
Caring — likes to know that
everyone’s feelings have been taken
into consideration and that their
voices have been heard before acting

- Participants are invited to go to the direction that corresponds best to their personal style. No one is only one direction, but everyone can choose one as their predominant one;
- The groups get 15 min. so that each group can answer the following questions:
 - What are the strengths of your style? (4 adjectives) (write that in ‘your box’)
 - What are the limitations of your style? (4 adjectives) (write that in ‘your box’)
 - What style do you find most difficult to work with and why? (write that in ‘the corresponding box’)
 - What do people from each of the other directions or styles need to know about you so you can work together effectively? (write that in ‘the corresponding boxes’)
 - What do you value about the other 3 styles? (write that in ‘the corresponding boxes’) When complete, each group will report back to the whole group.

Optional 1: In smaller groups the answers to 1-5 could be given individually in the boxes on paper (see last page) after which an exchange of the papers can take place. Discussion and feedback are also possible in that way.

Optional 2: The facilitator can hand out the more extended information below on a separate sheet.

- The facilitator organises a plenary by raising the following issues:
 - Short round of answers given by each group;
 - Note the distribution among the directions: what might it mean?
 - What is the best combination for a group to have? Does it matter?
 - How can one avoid being driven crazy by another direction?
 - How might one use this exercise with others? In the class? With students?
- The facilitator gives feedback at the very end of the protocol, by reflecting on the different personal styles that can be present in a group, and how to approach it as an added value.

References

http://schoolreforminitiative.org/doc/compass_points.pdf

Exemplification

By the use of this protocol:

- This is usable in many situations, and many time settings;
- It is advisable to have at least a group of 10 persons to make it really active, else it becomes more an abstract discussion on virtual people;
- People react very positive on this protocol: it makes sense and is very recognizable. The obligatory choice for ONLY ONE direction always provokes discussions;
- Maybe it is possible to position people in intermediate places to indicate more precisely where they find they belong.

If going deeper into discussion it can take more time, but discussions can be very clarifying to one another. (in a team of people that know each other already)

Teachers found this protocol very interesting because it allows to recognize the way of working of each community and how we interact with other with different ways of working.

Participants also recognized the importance of working with the added value, shared experiences and the potential of each one, according to their style.

Compass Points explanation expanded (developed by Sue Horan, June 2007)

North

- You take charge.
- You run the daily operation.
- You have lists of things to do and you need to get started and get them done.
- You get assignments in early.
- You don't have to ask questions to begin your work or assignment.
- You drive the work and get it done.
- You teach our children a complete curriculum.
- You will stitch the mosaic together and do the work.

East

- You have the big picture, the frame that needs to be filled in.
- You need to see the final product and will work with the end in mind.
- You believe in working backwards, understanding by design.
- You don't get a project started until you are clear about the final product.
- You teach our children the big concepts.
- You know what the mosaic looks like in the end.

West

- You ask the hard questions.
- You live by inquiry.
- You challenge us to identify the details.
- You don't start a project until you are clear about the details.
- You make our picture more complete.
- You lead by inquiry and engage in thoughtful discourse.
- You make us think and teach detailed concepts to our children.
- You fill in the details of the mosaic.

South

- You take in the information, slow us down, and make sure everyone has voice and is heard.
- You include everyone, and make sure the human side is nurtured.
- You take care of us and bring up our affective domain.
- You make sure the emotional side of our work is heard.
- You make sure we are all included.
- You teach our children with strong relationships and care.
- You add beauty to the mosaic, make sure everyone participates in the creation, and keep us all.

PROTOCOL ICEBREAKER: USING QUOTES. A TEXT-BASED ACTIVITY

Sources

A couple of activities (mostly 3.1 We perform), suggested by de Andrés, V., Arnold, J. “Seeds of Confidence” Helbling Languages 2009.

Purpose of the protocol

To get conversation going, e.g. in your PLC.

Materials

This activity can be used with a variety of texts: quotes, poems, extracts from articles, pictures, etc. It works well with large groups.

Time

50 min. approx., but depends highly on the time available and the goal of this activity

Roles

Facilitator, participants.

Process

Facilitator writes quotes on small cards prior to workshop. You may choose one quote per participant, or repeat some quotes.

1. Participants randomly select quotes and spend a few minutes reflecting upon their quote’s meaning for them and their work; (3 min.)
2. Participants mingle and share quotes in pairs. Participants are encouraged to share with three other participants in 5 minute segments; (15 min.)
3. (Optional) Form groups of three or four and share quotes and insights about the text and its implications for our work; (Extension: Speculate on the purpose / origin of the text) (15 - 20 min.)
4. Whole group sharing of ideas and questions raised by the experience. This can be done as a round but is usually not a conversation; (10 - 12 min.)
5. Facilitator shares the source of the quotes, posting the link, distributing the article etc. for future work. (1 min.)

Debrief the process. (5 min.)

References

De Andrés, V., Arnold, J. (2009). Seeds of Confidence. Helbling Languages.

Exemplification

You can use this format to share end of year reflections or start up aspirations.

Examples:

Teacher inquiry is not something I do; it is more a part of the way I think. Inquiry involves exciting and meaningful discussions with colleagues about the passions we embrace in our profession. It has become the gratifying response to formalizing the questions that enter my mind as I teach. It is a learning process that keeps me passionate about teaching.

Given today's political context, where much of the decision making and discussion regarding teachers occur outside the walls of the classroom the time seems ripe to create a movement where teachers are armed with the tools of inquiry and committed to educational change.

Note: it can used to confront different opinions, to show different possibilities, to rank things (for example the 10 mind frames of J.Hattie, tasks 2 or 3), to make a choice between options, etc. As an icebreaker it can bring members of the PLC directly to the subject of the day.

PROTOCOL ICEBREAKER: THE ZONES OF COMFORT

A **comfort zone** is a psychological state in which things feel familiar to a person and they are at ease and in control of their environment, experiencing low levels of anxiety and stress. In this zone, a steady level of performance is possible (Alasdair, 2009).

Purpose of the protocol

To make people feel more comfortable in a given situation where they are challenged. To give them insight in their own and others' reactions in situations which are not always very familiar. To establish a wondering. To have a guideline for setting up rules for a professional learning community.

Each can determine his own zones. Communicating them is **a way to build trust among the group members**.

Materials

Hint: if graphics are needed, many shapes are available on the internet.

Time

15 - 20 min. all together. If the goal is to establish a wondering or rules for the PLC, then more time is needed.

Roles

Facilitator, pairs, whole group.

Facilitation:

There is an overall introduction of the protocol goals and steps. The facilitator also gives feedback at the very end of the protocol. The protocol should be used not too soon.

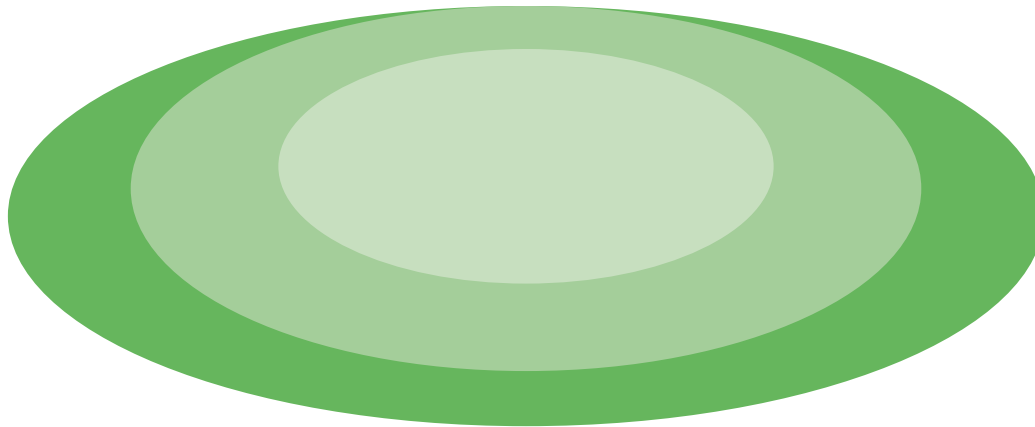
If the group of people know each other already (being colleagues for years already) then still it is a useful activity in view of building trust among the group members.

Whole group participates, group building activity. First phase is individual, after that sharing is done, and if the group is very large, some minor exchange is also needed. Do not force people in their Danger Zone!

Process

The facilitator asks the participants:

1. Draw a diagram of concentric circles in the following manner: (6 min.)
 - The middle circle is comfort, the second is risk, and the third is danger;
 - Consider the various aspects of your work. Think about the aspects that feel really comfortable to you, those that feel like there is some risk involved, but generally positive, and those aspects that you know get your hackles up, make you feel defensive, cloud your judgment, or make you want to retreat;
 - Decide on the size of each zone based on your consideration. Do you work a lot in your comfort zone, your risk zone? Do you work only a little in your danger zone? Make the size of the zones reflect the quantity (%) of time you work there;
 - Working in a PLC, in what zone would you situate this? Why?
 - Carrying out a practitioners' inquiry, in what zone would you situate this? Why?



2. Think about the tasks, people and places that make up your professional life.
3. Write each of these into the zone that best represents your sense of relative comfort, risk or danger; (3 min.)
4. Look at the tasks / people / places you put in the danger zone. Write a question for each of these beginning with, "How do I ...?". These dilemmas can later be explored; (3 min.)
5. Discuss among the group the answers each one of you gave. (5 min.)

References

Alasdair A., K. White: "From Comfort Zone to Performance Management" [1]

<https://www.nsrffharmony.org/free-resources>, in particular https://www.nsrffharmony.org/system/files/protocols/zones_of_comfort_0.pdf

Exemplification

It is essential to have a participants working in their zone of comfort in their PLC, while at the same time they understand that doing PI can lead them to their zone of risk.

It is advisable to use these terms on a regular base, it comforts people to express their state of mind themselves, which creates a safe environment.

The directions below include each participant drawing the zones on paper. Another variant to consider includes using yarn or masking tape to make large circles on the floor, big enough for the participants to step into the three zones.

The nsrf website has an elaborated version of the protocol. (see references)

Searching the internet learns that this protocol is well known, and that there are many applications.

One can ask participants regularly, in case discussions are very animated, to indicate in which zone they feel they are.

Another way of using zones of comfort is to make a time line of all workshops, split the workshops into their smaller activities and then ask participants to colour these sections green, yellow and red respectively, according to their feeling at that moment during this activity.

Still another way of using it, more as feedback than as icebreaker, is to ask participants to make two drawings. On these drawings, for given topics such as PI, working in a PLC, taking the lead in a PLC, they indicate their zones of comfort at the beginning of the series of workshops. It reflects to a certain extend their prior knowledge, and their confidence on the topics. At the end of the week they make the same exercise, expanding their zones of comfort in agreement with their learning during the workshops. They can have learned more or less on topics, resulting in different shapes at the end. And one more option is to indicate on the last drawing what they want to learn more about in the future, indicated by dotted lines for example.



PROTOCOLS RELATED TO PLCs

PROTOCOL: PASSIONS FOR BEING A COACH OF A PLC (1)

PROTOCOL: PASSIONS FOR BEING A COACH OF A PLC (2)

PROTOCOL: CONSENSOGRAM

PROTOCOL: ATTRIBUTES OF A LEARNING COMMUNITY

PROTOCOL: FORMING GROUND RULES (CREATING NORMS AND VALUES)

INFORMATION SHEET: TYPES OF PI IN PLCs

PROTOCOL: BLOCK PARTY ON PROFESSIONAL LEARNING COMMUNITIES

INFORMATION SHEET: INQUIRY QUESTIONS FOR A COACH

INFORMATION SHEET: WHAT ARE CLARIFYING AND PROBING QUESTIONS

INFORMATION SHEET: PROTOCOLS: WHAT, WHY AND HOW?

PROTOCOLS: JIGSAW METHOD FOR READING TEXTS

PROTOCOLS: GUIDANCE FOR FEEDBACK USING BONO' S HATS.

PROTOCOLS: THE FINAL WORD

SURVEY: IS YOUR PLC REALLY A PLC? HAS YOUR PLC ESSENTIAL ELEMENTS OF A HEALTHY PLC?

PROTOCOL: PASSIONS FOR BEING A COACH OF A PLC (1)

Sources:

Linpilcare project P8 (wonderings ripped by passions)

C1 Training (CEF) Passions for being a PLC Facilitator(v1 and v2)

Dana, N., Yendol-Hoppey, D. (2009), *The reflective educator's guide to classroom research. Learning to teach and teaching to learn through practitioner inquiry* California, Corwin press

Purpose:

Participants discover their passion in education and delve deeper into their passion to come to a 'wondering' about their practice. The 'wondering' is the first step towards a researchable question for the practitioner inquiry of the participant.

Materials:

Process:

1. Give each participant a stack with the 8 passions. (see passions below)
2. Let each participant read the passion profiles and identify the passion that most accurately describes who he/she is as an educator. If several fit (this will be true for many participants), the participant choose the one that affects him/her the most, or the one that seems most significant as he/she reflects on his/her practice over time. (5 minutes)
3. Make groups of 4 people and share your passions. (4 minutes)
4. In this group of colleagues choose a facilitator, a timekeeper and a recorder/reporter. (2 minutes)
5. Share the passions in the group and look for overlaps and differences. Check to see if you all have shared passions. Explain your choice to your colleagues, and illustrate that, if possible, with short stories/examples/experiences from your practice. What is it like to have the role of coach in an educational environment. Each person in the group takes turns in talking, uninterrupted, for 3 minutes. (12 minutes)
6. Next, each person in the group gives an example from practice in more detail in which his passions have played a role. (4 x 2 min minutes). The following questions may help elaborating the example:
 - a. How have I supported this/these teacher(s) in my role as coach?
 - b. What has worked? What hasn't?
 - c. What else could I have done?
 - d. What questions/wonderings/bothers/dilemmas does this raise for me?
7. Talk as a group about inquiry questions that you as coach might encounter during your work. List as many of these questions/wonderings/bothers/dilemmas as you can. If possible link them to your possible passions (10 minutes)
 - a. Recorder/reporter should write on a chart and should be ready to report out to the large group.
8. Whole group debrief: (10 minutes)
 - a. What strikes you as you listen to the passions of your colleagues?
 - b. Which of the questions generated intrigues you the most? Why?
 - c. How would you explore this question with colleagues?

The child

You became a teacher primarily because you wanted to make a difference in the life of a child. Perhaps you were one of those whose life was changed by a committed, caring teacher and you decided to become a teacher so that you could do that for other children. You are always curious about particular students whose work and/or behavior just doesn't seem to be in sync with the rest of the students in our class. You often wonder about how peer interactions seem to affect a student's likelihood to complete assignment, or what enabled one of your language learning students to make such remarkable progress seemingly overnight, or how to motivate a particular student to get into the habit of writing. You believe that understanding the unique qualities that each student brings to your class is the key to unlocking all their full potential as students.

The curriculum

You are one of those teachers who are always "tinkering" with the curriculum to enrich the learning opportunities for you students. You have a thorough understanding of your content area. You attend conferences and subscribe to journals that help you to stay up on current trends affecting the curriculum you teach. Although you are often dissatisfied with "what is" with respect to the prescribed curriculum in your school, you are almost always sure that you could do it better than the frameworks. You are always critiquing the existing curriculum and finding ways to make it better for the kids you teach – especially when you have a strong hunch that "there is a better way to do this.

Content knowledge

You are best in the classroom when you have a thorough understanding of the content and/or topic you are teaching. Having to teach something you don't know much about makes you uncomfortable and always motivates you to hone up this area of your teaching knowledge base. You realize that what you know will influence how you get it across to your students in a developmentally appropriate way. You spend a considerable amount of your personal time – both during the school year and in the summer – looking for books, material, workshops, and courses you can take that will strengthen your content knowledge.

Teaching strategies

You are motivated most as a teacher by the desire to improve on an experiment with teaching strategies and techniques. You have experienced and understand the value of particular strategies to engage students in powerful learning and want to get really good at this stuff. Although you have become really comfortable with using cooperative learning with your students, there are many other techniques that interest you and that you want to incorporate into your teaching repertoire.

The relationships between beliefs and professional practice

You are motivated most as a teacher by the desire to improve on an experiment with teaching strategies and techniques. You have experienced and understand the value of particular strategies to engage students in powerful learning and want to get really good at this stuff. Although you have become really comfortable with using cooperative learning with your students, there are many other techniques that interest you and that you want to incorporate into your teaching repertoire.

The intersection between your personal and professional identities

You came into teaching from a previous career and often sense that your previous identity may be in conflict with your new identity as an educator. You feel ineffective and frustrated when your students or colleagues don't approach a particular task that is second nature to you because of your previous identity – for example, writer, actor, artist, researcher – in the same way that you do. What keeps you up at night is how to use the knowledge, skills, and experiences you bring from previous life to make powerful teaching and learning happen in your classroom and/or school.

Advocating equity and social justice

You became an educator to change the world – to help create a more just, equitable, democratic and peaceful planet. You are constantly thinking of ways to integrate issues of race, class, disability, power, and the like into your teaching; however, your global concerns for equity and social justice sometimes get in the way of your effectiveness as an educator – like the backlash that resulted from the time you showed “Schindler’s list” to your sixth-grade class. You know there are more developmentally appropriate ways to infuse difficult and complex issues into your teaching and want to learn more about how to do this with your students.

Context matters

What keeps you up at night is wondering how to keep students focused on learning despite the many disruptions that go on in your classroom or building on daily basis. It seems that the school context conspires against everything that you know about teaching and learning – adults who don’t model the behaviors they want to see reflected in the students, policies that are in conflict with the school’s mission, and above all high stakes testing environment that tends to restrain the kind of teaching and learning that you really works for the students you teach.

Leadership

You are motivated by leading people, and you strive to help them to reach the members of the group reach their goal. You like to have everything under control, and being able to decide what will happen next. You are enthusiastic about leading a group, and you want to make people aware about how wonderful their subject is. You are an expert in your chosen area, and you believe that strong guidance from an expert is the best way to support a professional learning community to learn.

The people in the group, the characters behind the professionals

You are interested in the people in the group and want to get to know them as individuals. You want to be the driving force for every person in the group, and this challenge motivates you. You like to create a positive atmosphere in the group, and work to ensure that all members can be of added value to the group.

The subjects the group of PLC members tackle

You are interested in the subjects that the members of the group will tackle, and want to help the group members dig deeper into these subjects. You want to use your own experience to support the members of the group to change their practice so the subjects are being taught better. Helping others to understand and teach their subject better truly motivates you.

To improve education in this way

You believe that working as part of a professional learning community will result in better education in general. You remain realistic, and know that this is only a small step. You feel that being a member of a professional learning community will improve your practice within your organisation. You want to be at the forefront of innovative insights in education. You want to make your organisation a better in general and think that this will help.

Because you want the teachers to become learning professionals

You want to transfer your attitude to learning and education to another group of teachers, and you want teachers to do the same with their students. You want to be a model for the group, and believe that a learning teacher inspires and stimulates the learning of their students. Y

You want to introduce scientific research to the world of education

You are passionate about research and you want your professional learning community to know that research has a lot to offer to their own learning. You want the group to see that evidence is available for the efficacy of the strategies that you use, and that they might use.

PROTOCOL: PASSIONS FOR BEING A COACH OF A PLC (2)

Passions: distribute 100 points among the 5 passions below. Ask one question that could lead to improving your own practice. Connect this question to the passions.

- leadership

- You like to lead a group to help them reaching a goal
- You love it to have structure and everything under control
- You love to be able to be decisive on what will happen next
- You love to organize processes that put people to work and learn
- For you it is a challenge to be the driving force for every character

- the people in the group, the individual characters behind the professionals

- You want to get to know the people in the group as individuals
- You want to persuade/convince/let experience all members, also the negative ones, to be an added value to the group
- You want to make people feel good and safe in the group
- You love people enjoying learning, and you like helping them

- the subjects the group of PLC members tackle

- You are curious about the subjects the members of the group will tackle
- You want to help them digging deeper into these subjects
- You want to support the members of the PLC to change their practice so that the subjects are being taught better
- You want to learn from the PI the members did, to communicate that to other teachers
- You believe that there is always a chance that subjects can be taught in better ways

- the belief in better education in this way

- You believe that working in PLC will end up in a better education in general
- You believe that a member of a PLC will me a stronger personality also in other school matters
- You believe to be in the forefront of innovative insights in education
- You remain realistic, knowing that it is only a small step.

- the need to give new energy, motivation to people of the PLC

- You want to push people in their motivation
- You are enthusiastic about their work, no matter what subject or content
- You make people aware how wonderful these discussions are

PROTOCOL: CONSENSOGRAM

Sources

School Reform Initiative: Mrs. Gene Thompson–Grove learned the consortium to know consensogram during a professional learning activity. Catholic Education Flanders made a protocol from this.

Purpose of the protocol

What is a consensogram:

This way of questioning helps to map the prior knowledge, skills & needs of participants. The facilitator asks 8 questions. The participant answers each question with ++ = I strongly agree, + = I agree, - = I disagree, - - = I strongly disagree. As soon as the participants have answered the questions, the results are visualized.

The facilitator writes each question on a large sheet. Under each question an XY axis is designed. The X axis is labelled ++ + - and - -. The Y axis is labelled with numbers. Each participant has 8 post-it notes. For each question they stick a post-it note above ++, +, -, or - on the X axis.

Next, the group notes what they see (*), they discuss and analyze the produced data, they interpret the data and they draw conclusions.

When can a consensogram be used:

A consensogram can be used to determine the opinion of the participants about an issue and to structure discussions. A consensogram helps to get a better understanding, to formulate the opinion of the participants and to share their opinions. A consensogram gives the facilitator immediate information and data to work on. A consensogram makes sure that all participants are involved in the issue and that their prior knowledge is taken into consideration.

Materials

Questionnaire, 8 large sheets - one for each question – with an XY axis, 8 post-it notes for each participant.

Time

20 min. to realize the consensogram, 40 min. to have a professional discussion / conversation on the results (depending on the number of questions and the number of participants).

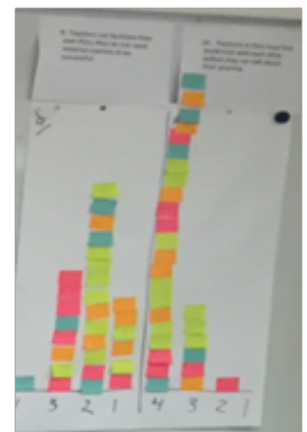
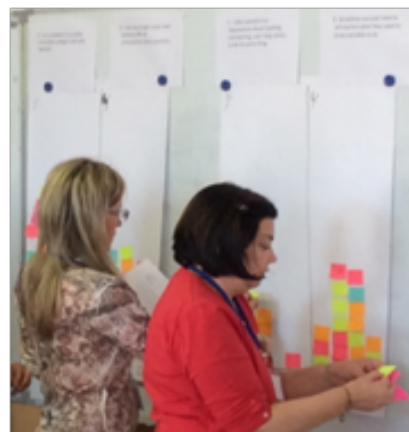
Roles

Facilitator who leads the process, participants.

Process

Preparation:

- Prepare 8 questions, note each question on a large sheet (of paper);
- Draw 2 axes on each sheet:
 - X = horizontally: the opinion ++ + - - - (or 4 3 2 1 as on the picture), ranging “totally agree” to “totally disagree”
 - Y = vertically: the number of answers
- Stick the sheets on the wall;
- Ensure that each participant has as many post-it notes of the same size as you have questions (mostly 8).



Process: realizing the consensogram 12 min: participants do the following strictly individually

- Presentation of the questions one by one;
- Participants write the number of the question on a post-it note and note their response to each question on it (e.g. question 1, ++);
- Participants stick their post-it notes carefully one above the other, on the 8 sheets (of paper).

Process: professional discussion / conversation based on the consensogram

- The facilitator asks the participants to only look at the charts and to note what they see. (the facilitator makes sure that the participants don't interpret yet); (8 min.) Participants walk along all sheets.
- Next the participants deliberate in groups of 4 on what they see. They write it on big post-it notes and glue them on the sheet. The groups share their findings. (the facilitator makes sure that the participants don't interpret yet); (8 min.)
- The facilitator asks each participant to analyse individually what they see on the graphs; (8 min.)
- The participants deliberate in groups of 4 on their analysis. They write it on big post-it notes of different color and glue them on the sheet The groups share their analysis. (8 min.)

The facilitator asks each group to draw conclusions based on the results of their analysis. The groups share their conclusions. (5 min.)

Exemplification

Facilitators have facilitated many times the consensogram protocol.

We advise not to take the lead in the analysis and interpretation process itself. This was not successful because the participants have to analyze the graphs/charts themselves and have to draw their own conclusions! If the consensogram is used early in the process, then it is a good exercise.

Discuss the consensogram process and make participants think / reflect on how they can use a consensogram in their own practice.

1 st set of examples of questions (sampling the pre-knowledge of a PLCT):

When you ask the questions, inform the participants that these questions should be considered within the context of their own practice. Refer for instance to their practice during the past week, month – their practice with a specific group of students ...

Nr.

++ + - --

1. Practitioner inquiry is an integral part of the job of teachers (of: a teacher's job).
2. The many years of experience of teachers have turned them into experts.
3. Effective teachers set their own learning goals and monitor their own learning progress.
4. For a teacher it's not enough to know if something works, he/she also needs to know why something works.
5. The extent to which teachers constantly search how to optimize their practice determines their expertise.
6. It's better for teachers to follow textbooks because they have been written by experts.
7. Inquiring your own practice is a continuous professional learning strategy.
8. Data collection is an essential part of a teacher's job.

2nd set of examples of questions (feedback towards the end of a PLCT cycle)

Please complete the survey, based on your own learning in a given context within a group in the past

Part 1 Shared values and goals and collaborative learning

1.a Members of the group talked with each other about their work and the specific challenges they face

Not at all	Somewhat	50%	To a large degree	To a great extent
1	2	3	4	5

1.b Members of the group shared each others' methods and philosophies.

Not at all	Somewhat	50%	To a large degree	To a great extent
1	2	3	4	5

1.c The goals for the group were made clear to all participants

Not at all	Somewhat	50%	To a large degree	To a great extent
1	2	3	4	5

1.d The group was structured in a way that participants were given the opportunity to work towards the collaborative goals

Not at all	Somewhat	50%	To a large degree	To a great extent
1	2	3	4	5

Part 2 Collective Inquiry

2.a Members of the group took risks in trying new techniques and ideas and make efforts to learn more about their profession.

Not at all	Somewhat	50%	To a large degree	To a great extent
1	2	3	4	5

2.b Members of the group had a shared understanding of and commitment to the goals of the group

Not at all	Somewhat	50%	To a large degree	To a great extent
1	2	3	4	5

2.c Members of the group worked together to solve problems or to enhance their learning

Not at all	Somewhat	50%	To a large degree	To a great extent
1	2	3	4	5

2.d It was evident that learning for all was a core purpose of the group

Not at all	Somewhat	50%	To a large degree	To a great extent
1	2	3	4	5

Part 3. The learning experience

3.a I always felt comfortable within the group to share my ideas and thoughts

Not at all	Somewhat	50%	To a large degree	To a great extent
1	2	3	4	5

3.b The structure of the group made it easy for me to learn new things

Not at all	Somewhat	50%	To a large degree	To a great extent
1	2	3	4	5

3.c I received feedback from other group members with regards to my learning.

Not at all	Somewhat	50%	To a large degree	To a great extent
1	2	3	4	5

3.d The group provided opportunities to discuss how my learning can be used in other contexts

Not at all	Somewhat	50%	To a large degree	To a great extent
1	2	3	4	5

PROTOCOL: ATTRIBUTES OF A LEARNING COMMUNITY

Sources

Inspired by SRI (<http://www.schoolreforminitiative.org/>) and adapted to the European context by Catholic Education Flanders.

Purpose of the protocol

Teams can use this tool at the start of a professional learning community. By using this tool, teams start from their prior knowledge on 'what a place of positive learning is'. The participants themselves establish basic attributes of good learning communities through their own & real experiences. The attributes become the basic goals / guidelines for establishing a professional learning community and later on for checking on progress as their new professional learning community develops.

Materials

A sheet of paper.

Time

45 min.

Roles

Group leader to introduce the protocol;

To work in small groups: facilitator, time keeper, presenter, participants.

Process

1. Participants write about a personal experience in a learning community that they know was a place of positive learning for them. It can be an experience in a club, a group, a school, a course ... any group that was a positive learning experience. Their writing should include:
 - A. The reason for the group's existence;
 - B. How the group was structured;
 - C. What they learned;
 - D. How they learned;
 - E. What made it a positive learning place. (8 min.)
2. The participants form groups of 4 and appoint a facilitator, a time keeper, a presenter; (2 min.)
3. Every participant gets 3 minutes to share his/her story. If the participant needs less than 3 minutes to share, the rest of the time is silent time to reflect on what the participant shared; (3 min. each participant = 12 min.)
4. As each story is told, the group picks out the attributes that made that learning community productive and satisfying (e.g. everyone listened to each other, we worked cooperatively to get things done, there was a lot of respect for different opinions ...); (8 min.)
5. Each group makes a list of the 4 or 5 attributes that seem to stand out for them. Sometimes they will be attributes that show up in all the stories, sometimes it will be an attribute that only appears in one story but seems really important to the group; (5 min.)

6. Each group names one attribute in turn while the group leader records on a general list. Any repeated attributes get noted with stars (*); (5 min.)
7. When the list is complete (the facilitator can reword for a succinct list), the group leader asks the group if this list seems like a good list of attributes to guide the group as it forms its own community of learners. Additions can be made at this time. If anything on the list seems hard to do, or inappropriate to the group, a note to that effect is written next to that attribute; (5 min.)
8. At different points during the seminar / workshop, the 'Attributes of a Learning Community' are checked for development and progress.

Feedback on the use of the protocol

1. The same process can be used to look at the attributes of a good learning experience. It gets at the essential elements of what is going on when people know they are learning at a high and satisfying level. The initial question gets changed to "Think about a time when you know you were really learning a lot, and 'enjoying the process'. Write about that time ...";
2. Rik has used this protocol many times during national and international Erasmus+ KA1 courses. The participants realized each time a splendid overview of 'attributes of a learning community'. By working with this protocol, you activate the prior knowledge of the participants. All effective professional learning of teachers starts by their prior knowledge. (cfr. Timperley H.,2011, realizing the power of professional learning, Open University Press, Berkenshire - New-York)

PROTOCOL: FORMING GROUND RULES (CREATING NORMS AND VALUES)

Sources

SRI, resource and protocol book (<http://schoolreforminitiative.org>).

Purpose of the protocol

Gaining agreement around ground rules, or norms & values, is important for a group that intends to work together on difficult issues, or who will be working together over time. They may be added to, or condensed, as the group progresses. Starting with basic Ground Rules builds trust, clarifies group expectations of one another, and establishes points of “reflection” to see how the group is doing regarding process.

Materials

Chart paper.

Time

Approximately 30 min.

Roles

Facilitator, participants.

Process

1. Ask every participant to write down what each participant needs in order to work productively in a group, giving an example of one thing the facilitator needs, i.e. “to have all voices heard,” or “to start and end our workshops when we say we will.” (this is to help people focus on process rather than product);
2. Each participant names one thing from her/his written list, going around in a circle, with no repeats, and as many circuits as necessary to have all the ground rules listed;
3. Ask for any clarifications needed. One person may not understand what another person has listed, or may interpret the language differently;
4. If the list is VERY long — more than 10 Ground Rules — ask the group if some of them can be combined to make the list more manageable. Sometimes the subtle differences are important to people, so it is more important that everyone feel their needs have been honored than it is to have a short list;
5. Ask if everyone can abide by the listed ground rules. If anyone dislikes or doesn't want to comply with one of them, that ground rule should be discussed and a decision should be made to keep it on the list with a notation of objection, to remove it, or to try it for a specified amount of time and check it again;
6. Ask if any one of the ground rules might be hard for the group to follow. If there is one or more, those ground rules should be highlighted and given attention. With time it will become clear if it should be dropped, or needs significant work. Sometimes what might appear to be a difficult rule turns out not to be hard at all. “Everyone has a turn to speak,” is sometimes debated for example, with the argument that not everyone likes to talk every time an issue is raised, and others think aloud and only process well if they have the space to do that. Frequently, a system of checking in with everyone, without requiring everyone to speak, becomes a more effective ground rule;
7. While work is in progress, refer to the ground rules whenever they would help group process. If one person is dominating, for example, it is easier to refer to a ground rule that says, “take care with how often and how long you speak,” than to ask someone directly to stop dominating the group;
8. Check in on the ground rules when reflection is done on the group work. Note any that were not followed particularly well for attention in the next work workshop. Being sure they are followed, refining them, and adding or subtracting ground rules is important, as it makes for smoother work and more.

INFORMATION SHEET: TYPES OF PI IN PLCS

Sources

Dana, N.F., & Yendol-Hoppey, D. (2008) *The reflective educator's guide to professional Development: coaching Inquiry-Oriented Learning Communities*. Thousand Oaks, CA: Corwin press. And the CFR of Linpilcare.

Purpose of the protocol

Gain insight in different types of PLC.

Materials

Copies of the text of this tool.

Process

9. Read the text on the next pages;
10. Discuss and decide what kind of PLC you are or want to start.

Teachers come together for their first workshop

Cristina: I think everyone's here now, so let's start our workshop.

Willem: Can I ask a question first? I heard that you're going to tell us something about how you can make students do their homework?

Cristina: Well, not exactly ... It's not like I'm teaching you. We want to learn about this together.

Tomaž: And how do we do that? I think we should be really clear on how we're going to spend our time. For me it's busy enough as it is.

Rik: That's why we invited Marleen from the teacher training centre to help us get on track and make these workshops as effective as possible.

Marleen: Thanks for inviting me. Maybe discussing how you want to work during, and in between, these workshops would be a good starting point. That way, you all know what to expect and what you want to accomplish.

Barbara: I thought that we could use the workshops to share what we have learned about our experiments with increasing the number of students that do their homework and ask each other for ideas on how to proceed.

Rik: Zooming out, I would like us to agree on the goals of our projects. If you'd ask me, I'd say that the most important thing is to improve our students' learning, and that we are using homework as a lever in achieving just that. Do you agree?

Tomaž: I think I do. Am I right that you said 'projects'? Plural? Does that mean that each participant undertakes his or her own experiment? Or are we working on one joint project?

Marleen: When I talked to Cristina before the workshop, I understood that you intent to conduct individual inquiries – if that's the right word to use – but all circling a joint theme: homework.

Willem: So what we're doing here will be more like a learning community, not a course.

Cristina: Right! And I think Marleen's suggestion of deciding on how to manage our workshops and projects would be a good way to start. It will probably cost us some time at this point, but save us time later on.

Barbara: I've written down the questions that were already asked. Let's go through them and see how far we'll get.

Different types of PLCs

There are many ways for people to work and learn in a PLC. In project Linpilcare, we advocate ‘inquiry-oriented’ PLCs. Nancy Dana (... p. 56) defines this kind of PLC as “a group of teaching professionals who meet regularly to learn from practice through structured dialogue and engage in continuous cycles of inquiry” (... p. 56). Furthermore, she distinguishes three types of inquiry-oriented PLCs: PLCs that are focused on:

1. ‘Shared inquiry’ means that all PLC members work together on conducting a single inquiry, they all have an interest in, because it concerns their professional practice.
2. ‘Intersecting inquiry’ are adequate when all PLC members have an interest in the same topics, but each conducts his/her own inquiry based on this topic. The topic is defined by all the members of the PLC group, the inquiry processes, outside the PLC workshops, are basically individual.
3. Parallel inquiry: All PLC members conduct individual inquiries on individually chosen topics.

The type of PLC influences the collaboration of the PLC members. In a shared PLC all the members are involved in the same inquiry with the same inquiry question. It could be easier for the PLC members to contribute to the inquiry. All members could, for example, bring data to the PLC workshop from their own classrooms, consequently establishing rich images of the practices at hand, including their similarities and differences. By doing so, it is very easy to really get a grasp of the content of the inquiry during PLC workshops. There are however also some disadvantages of a shared inquiry: there is always a risk that the topic and inquiry process are not (fully) the concern of all the members. This could be harmful to the involvement and professional learning of these PLC members.

The advantage of parallel inquiry is that all the members of the PLC chose topics that they are (likely) really committed to. There is also a risk: the absence of involvement on the content of inquiry can cause a lack of interest in the inquiry of others and therefore less motivation to contribute.

An intersecting PLC, as a middle ground between the other types of PLCs, seems to be preferable in a lot of cases: there is a balance between engagement on content and distance to be a critical friend, there is a shared topic, but with individual corresponding questions.

The teachers in the prelude are about to decide on what kind of PLC they would really want. In answer to Tomaž’ question (“Does that mean that each participant undertakes his or her own experiment? Or are we working on one joint project?”), Marleen describes an intersecting inquiry oriented PLC: “I understood that you intend to conduct individual inquiries – if that’s the right word to use – but all circling a joint theme: homework.”

The choice for which kind of PLC you start is really a discussion between the PLC members. It’s good to be open and transparent in discussing the pros and cons of the different types of PLCs and on deciding which type of PLC fits your situation best. It is of course essential that all the group members agree on the type of PLC to start.

PROTOCOL: BLOCK PARTY ON PROFESSIONAL LEARNING COMMUNITIES

Sources

School Reform Initiative – adapted by Debbie Bambino from Kyleene Beers’ pre-reading strategies
Dana & Yendol-Hoppey, The PLC-book, 2016.

Purpose of the protocol

With the quotes the participants use during this protocol, the participants explore their prior knowledge on the subject of 2 pillars of the project of the guide namely professional learning communities PLC and practitioner inquiry PI.

PS Gathering quotes on any subject is possible

Materials

A set of quotes on practitioner inquiry and professional learning communities, noted on index cards.

Time

50 min.

Roles

Facilitator, participants.

Process

1. The facilitator writes quotes on index cards prior to the workshop. You may choose one quote per participant, or repeat some quotes;
2. Participants randomly select quotes/cards and spend a few minutes reflecting upon their quote’s meaning for them and their work; (3 min.)
3. Participants mingle and share quotes in pairs. Participants are encouraged to share with 3 other participants in 5 minute segments; (12 – 15 min.)
4. (Optional) Form triads or quads and share quotes and insights about the text and its implications for our work; (12 – 15 min.)
5. As a whole group, share ideas and questions raised by the experience. This can be done popcorn style or as a round, but is usually not a conversation; (10 min.)
6. The facilitator shares the source of the quotes, posting the link, distributing the article etc. for future work. (2 min.)

Addendum: quotes on PLC

Professional learning community - PLC

Being able to simply navigate the PLC structure and process is partly important when the problems educators are trying to solve today are not simple at all. Linda Darling-Hammond (1997) wisely explains, “effective teaching is not routine, students are not passive, and questions of practice are not simple, predictable, or standardized” (p. 67). Too many people, both internal and external to schools, have complicated the PLC process, ignoring the simplicity of the learning that many good teachers are naturally inclined to – pose and explore questions about the highly complex act of teaching in an effort to make learning powerful and possible for all the students they serve (Dana & Yendol-Hoppey, 2016, p. 7).

Professional learning community - PLC

A PLC is not a replacement name for a committee meeting, staff meeting, department meeting, team meeting, or the like. In schools, committee meetings, staff meetings, department meetings, and team meetings all serve a purpose and can be an important part of work and life in schools. However, unlike PLCs, these types of meetings do not have a laser-like focus on teacher professional development and student learning as their primary goal and reason for being (Dana & Yendol-Hoppey, 2016, p. 3).

Professional learning community - PLC

Professional learning communities, when done well, allow teachers to collaboratively untangle some of the complexities associated with student learning that occur within their school buildings and classrooms. The approach allows educators to proactively solve their own dilemmas rather than waiting for others to mandate solutions to these problems that may or may not be effective or appropriate. In sum, a PLC can be defined as a group of educators who are collaboratively engaged in contextually specific learning by raising questions that are relevant to their local context and working together to answer those questions (Dana & Yendol-Hoppey, 2016, p. 2).

Professional learning community – PLC

Evidence exists that when done right professional learning communities (PLG) can enhance student achievement. In general researchers have identified an important positive relationship between teacher PLCs, teacher instructional practices, and student achievement (Buffman & Hinman, 2006; Erb 1997; Natkin & Jurs, 2005; Wheelan & Kesselring, 2005; Wheelan & Tilin, 1999). Not surprisingly, these researchers have also reported that the students of teachers who participated in mature PLCs that really focus on student learning performed higher on standardized tests. Students also demonstrated better attitudinal and behavioral outcomes including greater satisfaction, increased commitment to doing school work, and more engagement. All of this evidence suggest the promise and possibility PLC work holds for transforming schools, empowering teachers, and enhancing student learning (Dana & Yendol-Hoppey, 2016, p. 5).

Professional learning community - PLC

PLCs serve to connect a group of professionals to do just what their name entails – learn from practice. Although PLCs meet on a regular basis, just because they meet doesn’t mean that learning happens. Sometimes PLC members understand the end goal of their work to be teacher and student learning, but they may not know how to engage in the type of professional dialogue together that will get them there (Dana & Yendol-Hoppey, 2016, p. 5).

INFORMATION SHEET: INQUIRY QUESTIONS FOR A COACH

- To what extent do members of the PLCT adapt protocols to their needs?
- How can I provide evidence that I am flexible in my coaching?
- What kinds of motivation do members of my PLCT have and do they keep that motivation until the end of the cycle?
- What do the members of my PLC consider as the most important learnings?

INFORMATION SHEET:

WHAT ARE CLARIFYING AND PROBING QUESTIONS

Sources

SRI, resource and protocol book, <http://www.schoolreforminitiative.org/>
National School Reform Faculty Harmony Education Centre, www.nsrfharmony.org

Purpose of the material

Participants:

- Discover the difference between clarifying questions and probing questions;
- Discover more about what probing questions are;
- Get guidelines & suggestions to formulate probing questions;
- Get a list of examples with probing questions.

What are clarifying questions:

They are simple questions of fact. They clarify the dilemma and provide the nuts and bolts so that the participants can ask good probing questions and provide useful feedback.

Examples of clarifying questions:

- Is this what you said ...?
- What resources were used for the project?
- Did I hear you say ...?
- Did I understand you when you said ...?
- What criteria did you use to ...?
- Did I hear you correctly when you said ...?
- Did I paraphrase what you said correctly?

What are probing questions:

Probing questions are powerful, open questions that are intended to help the presenter think more deeply about the issue at hand. If a probing question doesn't have that effect, it is either a clarifying question or a recommendation.

A good probing question:

- Allows for multiple responses;
- Avoids yes/no responses;
- Empowers the person being asked the question to solve the problem or manage the dilemma (rather than deferring to someone with greater or different expertise)
- Stimulates reflective thinking by moving thinking from reaction to reflection;
- Encourages perspective taking;
- Challenges assumptions;
- Channels inquiry;
- Promises insights;
- Touches a deeper meaning;
- Creates a paradigm shift;
- Evokes more questions;
- Is concise;
- Prompts slow response.

Suggestions:

Since effective probing questions can be difficult to frame, we offer the following suggestions:

- Check to see if you have a ‘right’ answer in mind. If so, delete the judgment from the question, or don’t ask it;
- Refer to the presenter’s original question/focus point. What did he/she ask for your help with? Check your probing questions for relevance;
- Check to see if you are asserting your own agenda. If so, return to the presenter’s agenda;
- Sometimes a simple ‘why ...?’ asked as an advocate for the presenter’s success can be very effective, as can several questions asked in a row;
- Try using verbs: ‘What do you fear? Want? Get? Assume? Expect?’;
- Think about the concentric circles of comfort, risk and danger. Use these as a barometer. Don’t avoid risk, but don’t push the presenter into the ‘danger zone’;
- Think of probing questions as being on a continuum, from ‘recommendation’ to ‘most effective probing questions’ as a way to distinguish between suggestions, advice giving, and probing questions. Consider these questions from a consultancy, during which a teacher presented a dilemma about increasing students’ commitment to quality work:
 - Could you have the students assess their work using a rubric?
(recommendation re-stated as a question)
 - What would happen if students assessed the quality of their work themselves?
(recommendation re-stated as a question)
 - Why should students be interested in doing quality work?
(probing question)
 - What would have to change for students to work more for themselves and less for you?
(more effective probing question)

Possible probing questions:

- Why do you think this is the case?
- What would have to change in order for ...?
- What do you feel is right?
- What’s another way you might ...?
- How is ... different from ...?
- What sort of an impact do you think ...?
- When have you done / experienced something like this before? What does this remind you of?
- How did you decide / determine / conclude ...?
- What is your hunch about ...?
- What was your intention when ...?
- What do you assume to be true about ...?
- What is the connection between ... and ...?
- What is the opposite were true? Then what?
- How might your assumptions about ... have influenced how you are thinking about ...?
- What surprises you about ...? Why are you surprised?
- What is the best thing that could happen?
- What do you need to ask to better understand?
- How do you feel when ...? What might this tell you about ...?
- What is the one thing you won’t compromise?
- What criteria do you use ...?
- Do you think the problem is X, Y or something else?
- What evidence exists ...?
- If you were X, how would you see this situation?
- If time, money were not an issue ...?

In order to frame better questions, you should ask yourself:

- Is this question relevant to the real life and work?
- Is this a genuine question, i.e. a question to which I really don't know the answer?
- What “work” do I want this question to do? What kind of meanings and feelings do I imagine this question will evoke?
- Is this question likely to invite fresh thinking / feeling? Is it familiar enough to be recognizable and relevant, yet different enough to call forward a new response?
- What assumptions or beliefs are embedded in the way this question is constructed?
- Is this question likely to generate hope, imagination, engagement, creative action, and new possibilities or is it likely to increase a focus on past problems and obstacles?
- Does this question leave room for new and different questions to be raised as the initial question is explored?

INFORMATION SHEET: PROTOCOLS: WHAT, WHY AND HOW?

Sources

Linpilcare & School Reform Initiative: <http://www.schoolreforminitiative.org/>

Purpose of the material

You learn to know:

- What a protocol is;
- What the roles are in a protocol;
- Why you can use a protocol;
- How you can use a protocol.

Material

What is a protocol:

Protocols consist of agreed upon guidelines for conversation. It is the existence of this structure, which everyone understands and has agreed to, that permits a certain kind of conversation to occur – often a kind of conversation that people are not in the habit of having.

Protocols are vehicles for building the skills – and culture – necessary for collaborative work. Thus, using protocols often allows groups to build trust by actually doing substantive work together.

Protocols are tools for building the skills and culture and creating the space and time necessary for reflective dialogue and collaboration. They allow participants to build trust as we engage in meaningful and authentic work.

Protocols are used to explore a piece of text, examine student work artefacts, structure more effective workshops, engage parents and community stakeholders in meaningful dialogue, as well as in classrooms to support student and adult learning.

In all cases *protocols* are designed to guide conversations, raise assumptions, reflect on our work and to collaborate in order to better serve students learning.

Protocols are most powerful and effective when used within an ongoing professional learning community and supported by a skilled facilitator.

A *protocol* is a set of step-by-step guidelines - usually in the form of a simple one- or two-page document - that is used by educators to structure professional conversations or learning experiences to ensure that meeting, planning, or group-collaboration time is used efficiently, purposefully, and productively.

What are the general purposes to use protocols:

While the specific purpose, process, and goals of a protocol may vary widely, educators commonly use protocols to structure professional discussions about instructional techniques, student work, student-performance data, or research studies and articles. The use of protocols serves several general purposes:

- Ensuring that educators remain focused on the specific, agreed-upon objectives and goals for a professional conversation;
- Building the foundational communication and facilitation skills essential to effective professional collaboration;

- Helping to nurture a culture of collegiality, trust, and mutual appreciation;
- Ensuring everyone in the group has an opportunity to contribute and be heard during a discussion;
- Reducing the tendency toward subjective, digressive, or one-sided conversations;
- Promoting focused, substantive, in-depth conversations about a specific topic;
- Encouraging active, respectful listening among all participants;
- Providing a “safe space” for teachers to share their work with colleagues without being concerned about negative criticism;
- Allowing difficult questions or issues to be raised in constructive ways;
- Eliminating unhelpful excuses, complaints, or comments about student behavior from professional discussion;
- Keeping conversations focused on goals, solutions, and results;
- Ensuring that the voice of every participant is heard and respected;
- Respecting the time and coming to conclusions that participants can use in their daily practice.

What are protocols designed for:

- Protocols are specifically designed to encourage all participants in a discussion to listen actively and respectfully and to contribute constructive comments and feedback while refraining from less productive forms of conversation, such as digressions, complaints, excuses, or disparaging comments;
- Protocols may be used to structure discussions or group activities and, once completed, they are often followed by some form of debriefing process during which participants discuss what they learned from the experience and/or how the process worked well and how it could be improved;
- Protocols are most commonly used in professional learning communities — groups of educators, usually teachers, who meet regularly, share expertise, and work collaboratively to improve their teaching skills and the academic performance of their students.

Hints when using protocols

- Study the protocols, choose and adapt (timing, grouping, rounds, ...) it to use it the most efficient way. The given protocols are adequate, but should be interpreted in a flexible way (grouping, timing, subject/goals even).
- Discuss the use of the protocols within the group: does it meet the norms and values? What changes are possible, in which situations?
- Do not hesitate to develop your own protocols

What are the possible roles in protocols:

Facilitator: In most cases, an assigned facilitator leads a group of teachers through a protocol to make sure that the conversation follows the established process and that everyone has an opportunity to contribute to the discussion.

Presenter: In a protocol a presenter shares the context and details about some aspects of her/his work with the group. Mostly a presenter offers a focusing question that will guide the protocol to follow.

Recorder: Protocols also commonly suggest that educators select a “recorder” who takes notes on the group discussion.

Time keeper: During a protocol, there is mostly a time keeper who monitors time and keeps the group on schedule.

Process observer / reporter: Is the person who monitors the discussion and points out problems that arose or positive outcomes that resulted.

How do protocols work:

Introduction:

Protocols set boundaries for our conversations. Protocols set aside time specifically for listening, noticing, thinking and speaking. The following are basic elements or stages of many protocols that are designed to provide the members of the group time to listen, notice, think, and speak.

Presentation:

At the beginning of most protocols, the presenter shares context and details about some aspects of her/his work with the group. This may include written documents, data, or a sampling of student produced work. At the end of the presentation the presenter offers a focusing question that will guide the protocol to follow. Group members are silent during the presentation.

Clarifying questions:

Clarifying questions have brief, factual answers. They ask the presenter “who, what, where, when and how”. These are not “why” or “what other approaches have you considered” questions. They can be answered quickly and succinctly, often with a phrase or two. The purpose of clarifying questions is to help the questioner better understand the presenter’s situation, and as such, are not likely to offer any “food for thought” to the presenter. The facilitator of the protocol will ask group members to pose clarifying questions and the presenter responds.

Group discussion:

The group talks (structured) with one another while the presenter listens silently and takes notes. It is helpful for the presenter to pull her/his chair back slightly from the group where she/he can more easily “listen in” and take notes without feeling the need to give eye contact or any other kind of response to the speakers. The group talks about the presenter in the third person, almost as if she/he were not there. Another tactic is to focus the discussion on the work that the presenter has brought. So the conversation is not about the presenter but about the work. As awkward as this may feel at first, it often opens up a richer conversation, and it is only for fifteen minutes or even less! It is the group’s job to offer an analysis of the situation; it is not necessary to solve the problem or offer a definitive answer.

Presenter response:

During this time the presenter thinks out loud about what were, for her or him, the most significant comments, ideas, or questions she/he heard during the group discussion. She/he might also share any new thoughts or questions that emerged for them while listening to the group.

Reflection / debrief:

It’s important to give everyone a chance to talk about the process and how it went – both as a way to learn what works for the group, as well as to reflect individually on the skills necessary for engaging in reflective dialogue. Often hearing other perspectives on the process helps people see the value of using a structured protocol.

In some protocols, you will find additional features or modifications of the above steps that have been designed for a specific purpose.

How you can use this material in your practice

- After having used some protocols, it might be interesting to delve deeper into what a protocol is, what the purpose of a protocol is and how protocols work.

We propose to use several protocols to discover the content of this material.

- To discover 'what protocols are', you can use the **block party** protocol;
 - The facilitator writes quotes on 'what protocols are' on index cards prior to the workshop. You may choose one quote per participant, or repeat some quotes;
 - Participants randomly select quotes/cards and spend a few minutes reflecting upon their quote's meaning for them and their work; (3 min.)
 - Participants mingle and share quotes in pairs. Participants are encouraged to share with 3 other participants in 5 minute segments; (12 – 15 min.)
 - (Optional) Form triads or quads and share quotes and insights about the text and its implications for our work; (12 – 15 min.)
 - As a whole group, share ideas and questions raised by the experience. This can be done popcorn style or as a round, but is usually not a conversation; (10 min.)
 - The facilitator shares the source of the quotes, posting the link, distributing the article etc. for future work. (1 min.)
- To discover the 'purposes' of protocols, you can use the **final word**. Work in groups of 4 with a timekeeper, a facilitator. Everybody is presenter;
 - Each person needs to choose one most significant purpose. It can be helpful to identify a back-up purpose as well;
 - The first person begins by reading the most significant purpose to him. Then in less than 3 minutes, this person describes why he/she has chosen this purpose;
 - Continuing around the circle, each person briefly responds to the chosen purpose and what the presenter said, in less than a minute.
- To discover 'what are protocols for' and the 'roles in protocols' you can work in pairs with the **jigsaw** protocol;
 - One participant of the pair reads 'what are protocols for' and one participant reads 'roles in protocols';
 - After reading their part, they share what they read.
- To discover 'how protocols work' you can also work in groups of four with the jigsaw protocol.
 - Participant 1 reads: introduction & presentation;
 - Participant 2 reads: clarifying questions;
 - Participant 3 reads: group discussion;
 - Participant 4 reads: presenter response & debrief.

PROTOCOLS: JIGSAW METHOD FOR READING TEXTS

Sources

Catholic Education Flanders adapted this tool from the work of Spencer Kagan and used resources for teachers from San Juan Capistrano, CA.

Purpose of the material

The purpose of jigsaw is to share learning. Members of a group become “experts” in a particular area of a mutual pursuit and share their learning/research with the other group members. It is also used when a lot of learning needs to happen in a short time. Chapters of books can be split up, various approaches to the same outcome can be researched, different experiments with the same materials can be conducted, different viewpoints on the same issue can be studied, and the results shared. This is effective for students or adults. There are several ways this can happen.

Material

Within team jigsaw

Each member of a team works independently to master a portion of a topic or skill. When each member has completed the work as planned, they gather at an agreed upon time to share the new knowledge. Often there is some kind of synthesis of the shared knowledge.

Example:

There are four protocols for observing in a classroom. Each person in a group of four reads one of the observation protocols and presents that approach to the other team members, with guiding question to assist the shared learning, such as:

- “What kind of feedback is generated by this protocol?”
- “What kind of observation is most appropriate for this protocol?”
- “What is the value of this protocol in terms of student learning; teacher practice?”

The group compares and contrasts the four protocols.

Team jigsaw

Each team become an “expert” on one topic or skill. Team members spread out to share their new knowledge with the rest of the teams. Team # 1 spreads out and sends a member to each of the other teams to share, then team # 2 does the same. There’s a bit of math to do here as there have to be enough “experts” to share with all the other teams or teams have to be combined to share “experts”. Two teams can research the same topic and check with one another for completeness and agreement before they “consult” with the other teams – this provides some checks and balances. Synthesis can be done as a whole group or in teams.

Example:

There are four protocols for observing in a classroom. The room is divided into 4 teams of 3 people (or 6). Each team studies one protocol, talking together and planning the best way to present the protocol to the other teams, using the guiding questions. Each team takes turns sending its “experts” out to the other teams (alone or as a pair) to share the protocol they have studied. After the sharing of the experts, there is a whole group synthesis that compares the four approaches.

Expert group jigsaw

Each member of a team takes on a portion/aspect of a topic or skill. More than one member of the team will take on the same portion/aspect if there are more group members than portions / teams. The team splits up and everyone goes to an “expert” group of all the people from all the teams taking on the same portion/aspect. The “expert” group masters the topic/skill or does the research necessary. The “expert” group plans a way to present their learning in the best possible way and practices the presentation if necessary. The “experts” all return to their teams where they make presentations to their team members.

Example:

There are four protocols for observing in a classroom. Each team assigns its members one of the four protocols. The team members break up and go with the appropriate “expert” group to study the protocol, discuss it together for understanding, using the guiding questions. They plan a presentation. The “experts” return to their team and each protocol is presented in turn. The protocols are compared in the teams.

Feedback on the use of the tool

Participants were very happy to use jigsaw in order to delve deeper into a difficult text.

When you organize it, you have to be aware that the parts of the text are quite similar in size and difficulty.

PROTOCOLS:

GUIDANCE FOR FEEDBACK USING BONO'S HATS.

Sources

Godinho, S., Wilson, J. (2007, Out of the Question. Stenhouse Publishers.

Purpose of the protocol

Using de Bono's Six Thinking Hats combined with Bloom's taxonomy enables all the participants of a certain PLC or students in class to participate and give warm and cool feedback etc. It enables the participants to work together, share responsibility and it also provokes different levels of thinking. Among other things it allows for creativity and new ideas.

When to use it:

- Giving feedback after class observations (developing critical friendship among teachers / colleagues; the tool gives participants the opportunity to express positive as well as negative aspects and propose possible changes, metacognition is included);
- In class with students when dealing with a new topic (discussion, reading a new text, when revising etc. This strategy encourages students to think at different levels – it develops cognitive thinking skills with students).

Materials

Feedback guidelines; Bloom/de Bono model (see chart).

Time

10 min.

Roles

- Facilitator;
- Participant / student;
- PLC.

Process

Steps:

1. The facilitator explains how the group is going to work and sees that everybody sticks to his/her assigned role / colour of the hat;
2. Each participant / pair (the organisation depends on the size of the group) is assigned the role (the colour of the hat) and should prepare his/her feedback in accordance with it;
3. The presenter has two colours. He/she is "a white and a blue" hat and starts the workshop (gives information on the lesson which was observed);
4. In turns, participants give their feedback; References
5. Bloom's Taxonomy Revised, Anderson and Krathwohl (2001). See <http://thesecondprinciple.com/teaching-essentials/beyond-bloom-cognitive-taxonomy-revised/> (1.6. 2017)
6. Exemplification
7. Critical friendship after class observations. The members of the PLC give the presenter (the teacher) feedback using this tool. They are divided into five groups, each group gives feedback only in relation to its hat (ex. White hat group talks only about facts, without judgement etc.).

HAT	GENERAL
WHITE (facts, information) Remembering/Understanding (1st,2nd level of Bloom's taxonomy)	What have you learnt? What should you learn? Facts. Where can you find appropriate information? Constructing meaning. Classifying, summarizing, inferring, comparing or explaining.
RED Evaluating (5th level of Bloom's taxonomy)	How do you feel about your achievements? What does your intuition say?
BLACK Critical thinking	What could you do better? What about the problems/troubles? What are the risks?
YELLOW Analysis/evaluating (4th, 5th level of Bloom's taxonomy)	Critiques, recommendations. What are the advantages/pluses of your work? What are the benefits? How the part relate to an overall structure or purpose?
GREEN Creating (6th level of Bloom's taxonomy)	What can you change/do differently? Suggestions, creativity. Putting elements together to form a coherent or functional whole; new pattern.
BLUE metacognition	What could you say about your development/advancement? What questions have you got now? What can you say about the process of thinking and learning? Check/control.

References

Bloom's Taxonomy Revised, Anderson and Krathwohl (2001). See <http://thesecondprinciple.com/teaching-essentials/beyond-bloom-cognitive-taxonomy-revised/> (1.6. 2017)

Exemplification

Critical friendship after class observations. The members of the PLC give the presenter (the teacher) feedback using this tool. They are divided into five groups, each group gives feedback only in relation to its hat (ex. White hat group talks only about facts, without judgement etc.).

PROTOCOLS: THE FINAL WORD

Sources

Developed by: SRI Jennifer Fischer-Mueller and Gene Thompson-Grove and adapted to the European context by Catholic Education Flanders

<http://www.schoolreforminitiative.org/>

Purpose of the protocol

The purpose of this protocol is to give each person in the group an opportunity to have their ideas, understandings and perspective enhanced by hearing from others. With this protocol, the group can explore an article, clarify their thinking, and have their assumptions and beliefs questioned in order to gain a deeper understanding of the issue.

Materials

The group leader has to choose/ to provide an introductory paper / article. The choice of an easy accessible paper / article is crucial for working with this protocol.

Time

If the paper / article is read in advance and the participants have identified one most significant idea from the text you need 28 min.:

4 rounds of 7 min. (circles of 4 participants):

- Presenter; (3 min.)
- Response (1 min.) for each of the 3 other participants;
- Final word for presenter. (1 min.)

If the paper / article is not read in advance and the participants haven't identified one most significant idea from the text you need 46 min.:

18 min. of reading time and identifying one most significant idea from the text:

4 rounds of 7 min. (circles of 4 participants):

- Presenter; (3 min.)
- Response (1 min.) for each of the 3 other participants;
- Final word for presenter. (1 min.)

Roles

Facilitator / timekeeper (who also participates), participants.

Process

Before you start the process:

1. Have participants identify one most significant idea from the text (underlined or highlighted ahead of time), it is often helpful to identify a back-up quote as well;
2. Stick to the time limits;
3. Avoid dialogue;
4. Have equal sized groups (of 4), like this, all groups will finish at approximately the same time;
5. Identify a facilitator / time-keeper.

The process:

1. Participant 1 begins by reading what struck her or him the most from the article. Let this person refer to where the quote is in the text – restricted to one thought or quote only. This person describes why that quote stuck her/him. For example, why does she/he agree / disagree with the quote? What questions does she/he have about that quote? What issues does it raise for her/him? What does she/he now wonder about in relation to that quote? (3 min.)
2. Continuing around the circle, each participant briefly responds to that quote and what the presenter said. The purpose of the response is:
 6. To expand on the presenter’s thinking about the quote and the issues raised for him or her by the quote;
 7. To provide a different look at the quote;
 8. To clarify the presenter’s thinking about the quote;
 9. To question the presenter’s assumptions about the quote and the issues raised (although at this time there is no response from the presenter). (3 times 1 min.)
3. After going around the group with each participant having responded for less than one minute, participant 1 (the participant that began) has the ‘final word’. The participant responds to what has been said. Now what is she/he thinking? What is her/his reaction to what she/he has said?
4. You repeat the process ...;
5. The next participant in the group then begins by sharing what struck her or him most from the text. Proceed around the circle, responding to this next presenter’s quote in the same way as the first presenter’s. This process continues until each person has had a round with his or her quote;
6. End by debriefing the process in your small group.

Exemplification

The Linpilcare consortium has used this protocol many times using the text ‘willing to be disturbed’. (<http://www.margaretwheatley.com/articles/pleasedisturb.html>) The participants were very satisfied about this protocol to delve deeper in a text together with colleagues.

SURVEY:

IS YOUR PLC REALLY A PLC? HAS YOUR PLC ESSENTIAL ELEMENTS OF A HEALTHY PLC?

Sources

Dana N., Yendol-Hoppey D., The PLC book, Corwin London, 2016.
<http://nsdcslu.org/index.html>

Purpose of the material

Participants inquire if their PLC is really a PLC.

Material

See addendum.

How you can use this material in your practice

You can give this survey to all participants of your PLC. They can answer the questions. Afterwards you can discuss the results and discuss how you can improve your PLC.

Debrief – reflection and metacognition

By reviewing these characteristics, you will have a better idea as to whether you're really currently working in a learning community. If your assessment is that the group is not engaged in these activities, then it is time to start rethinking how your community works.

Feedback on the use of the tool

You can use consensogram to discuss the results of this survey.

IS YOUR PLC REALLY A PLC (BASED ON NSCD, 2009).

These criteria helps to further define if the PLC is really a PLC.

Please assess with ++ = I strongly agree, + = I agree, - = I disagree and - - = I strongly disagree.

- | | | | | |
|--|----|---|---|----|
| | ++ | + | - | -- |
|--|----|---|---|----|
1. Does the PLC evaluate student learning needs by reviewing data on student performance?
 2. Does the PLC evaluate teacher learning needs by reviewing data on teacher performance?
 3. Does the PLC evaluate school learning needs by reviewing data on school performance?
 4. Does the PLC define a clear set of educator learning goals based on analysis of data?
 5. Does the PLC achieve educator learning goals by implementing coherent, sustained and evidence informed learning strategies that improve teaching effectiveness and student achievement?
 6. Does the PLC provide job-embedded assistance to help teachers transfer new knowledge and skills to the classroom?
 7. Does the PLC regularly assess the effectiveness of the PLC in relationship to ongoing improvements in teaching and student learning?
 8. Does the PLC request external expertise when the community determines it is needed?

By reviewing these characteristics, you will have a better idea as to whether you're really currently working in a learning community. If your assessment is that the group is not engaged in these activities, then it is time to start rethinking how your community works.

HAS YOUR PLC ESSENTIAL ELEMENTS OF A HEALTHY PLC (BASED ON NANCY DANA – THE PLC BOOK)

These criteria helps to further define if the PLC is a healthy PLC.

Please assess with ++ = I strongly agree, + = I agree, - = I disagree and -- = I strongly disagree.

- | | | | | |
|--|----|---|---|----|
| | ++ | + | - | -- |
|--|----|---|---|----|
1. Does the PLC establish a vision that creates momentum for their learning?
 2. Does the PLC build trust among group members?
 3. Does the PLC understand and embrace collaboration?
 4. Does the PLC encourage, recognize and appreciate diversity within the group?
 5. Does the PLC promote the development of critical friends?
 6. Does the PLC pay attention to the work 'in between' workshops?
 7. Does the PLC hold the group accountable for their learning?
 8. Does the PLC document their learning?
 9. Does the PLC has a comprehensive view of what constitutes data?
 10. Is the PLC willing to consider all forms and types of data throughout their PLC work?
 11. Does the PLC understand change and acknowledge the discomfort it may bring to some PLC members?
 12. Does the PLC work with the leading team of the school?

By reviewing these characteristics, you will have a better idea as to whether you're really currently working in a learning community. If your assessment is that the group is not engaged in these activities, then it is time to start rethinking how your community works.



PROTOCOLS RELATED to Practitioners Inquiry PI (See more in Volume 2)

**PROTOCOL: 7 WAYS TO GET STARTED USING THE 10 MIND FRAMES OF J. HATTIE
MATERIAL AND PROTOCOL: INQUIRY BRIEF
PROTOCOL: WHAT? SO WHAT? NOW WHAT?
PROTOCOL: INQUIRY BRIEF PEER FEEDBACK
PROTOCOL: BLOCK PARTY ON PRACTITIONER INQUIRY
PROTOCOL: PEELING THE ONION- DEFINING A DILEMMA
PROTOCOL: CONSULTANCY
PROTOCOL: EASY WAYS TO COLLECT DATA DURING YOUR WORK AT SCHOOL
PROTOCOL: ATLAS FOR DATA ANALYSIS
INFORMATION SHEET: ADDITIONAL DATA ANALYSIS ADVICE**

PROTOCOL: 7 WAYS TO GET STARTED USING THE 10 MIND FRAMES OF J. HATTIE

A stepping stone to come up with a question for a practitioners inquiry.

Introduction: the following 10 mind frames have been created following the research carried out by the New Zealand professor John Hattie. In 20 years, involving some 300 million students, he and his team, examined 252 indicators that influence the learning outcome of students. He summarized in these 10 mind frames those influences where the teacher matters. See [this](#) link.

Do ONE of the 7 possible tasks below, to understand which theme is closest to your heart for a practitioners inquiry.

TASK 1

Orden from 1 to 10 in order of importance according to you.
Orders from 1 to 10 how well you already do this in your practice.

10 Mindframes for Visible Learning

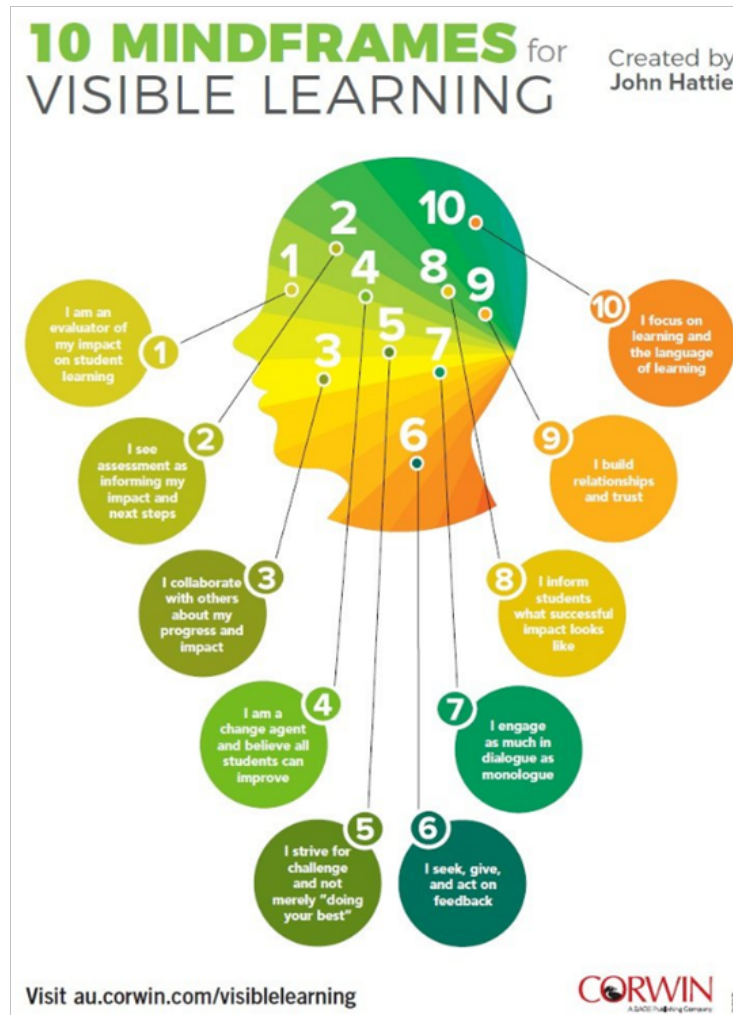
1. I am an evaluator of my impact on student learning
2. I see assessment as informing my impact and next steps
3. I collaborate with others about my progress and impact
4. I am a change agent and believe all students can improve
5. I strive for challenge and not merely "doing your best"
6. I seek, give, and act on feedback
7. I engage as much in dialogue as monologue
8. I inform students what successful impact looks like
9. I build relationships and trust
10. I focus on learning and the language of learning

Created by John Hattie

CORWIN Visible Learning^{PLUS}

TASK 2

Choose one of the 10 and tell a positive story about it that comes from your practice.



TASK 3

Pick one out of 10 and tell a positive story about what happened in your school.

TASK 4

Indicate next to each framework how it is visible at your school (... if...).

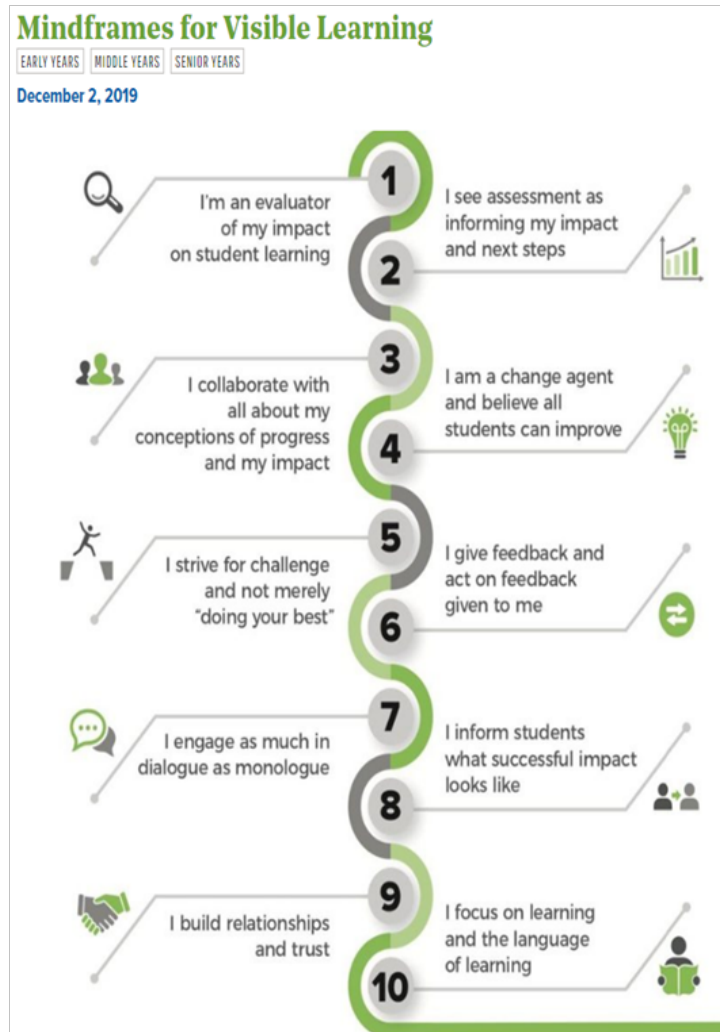
10 MINDFRAMES FOR VISIBLE LEARNING
Created by John Hattie

- 1 I'M AN EVALUATOR**
My fundamental task is to evaluate the effect of my teaching on students' learning and achievement, or "Know Thy Impact"
- 2 ASSESSMENT SHOWS ME MY EFFECT**
All assessments, including formative assessments, are a reflection of my effort more than the students'
- 3 I COLLABORATE**
While teamwork is essential, adults don't do it nearly as well as students
- 4 I'M A CHANGE AGENT**
The success (and failure) of my students' learning is about what I do or don't do
- 5 I TAKE ON CHALLENGES AND DON'T FEAR FAILURE**
John Hattie likes to say, "Making errors is the best way to learn"
- 6 I GIVE AND TAKE FEEDBACK**
I help students understand feedback and I interpret and act on feedback given to me
- 7 I TEACH THROUGH DIALOGUE, NOT MONOLOGUE**
This involves listening much more than talking
- 8 I USE OUR SCHOOL'S COMMON "LANGUAGE" OF LEARNING**
So that everyone knows what successful impact looks like
- 9 I DEVELOP POSITIVE RELATIONSHIPS**
In the class and in my school
- 10 I TALK ABOUT "LEARNING" MUCH MORE THAN "TEACHING"**
This keeps the student at the center of the conversation

visit corwin.com/visiblelearning **CORWIN**
A SAGE Publishing Company

TASK 5

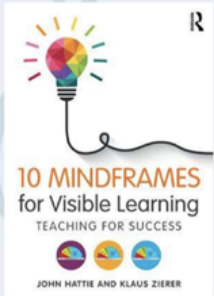
Next to each of the mind frame, put how this is visible (or not) in your practice.




TASK 6

Choose one of 10 Mindframes and ask yourself how to improve your practice.

10 Mindframes for Visible Learning



1. I evaluate my impact
2. I use assessment to inform my impact and next steps
3. I collaborate about my impact
4. I am a change agent
5. I strive for challenge
6. I give feedback
7. I engage in dialogue vs. monologue
8. I inform learners what successful impact looks like
9. I build relationships
10. I focus on learning vs. teaching



TASK 7

Give yourself a score on each of the statements below. Indicate the scale. See if you see a trend. Discover a theme you want to do something about. Put comments in the column on the right.

THE CHARACTERISTICS OF VISIBLE LEARNERS



L EARN FROM MISTAKES

E VALUATE WORK BASED ON SUCCESS CRITERIA

A SK QUESTIONS AND ACCEPT CHALLENGES

R ECEIVE AND RESPOND TO FEEDBACK

N EVER GIVE UP

E FFORT MATTERS

R EACH GOALS

S TATE WHAT I AM LEARNING



MATERIAL AND PROTOCOL: INQUIRY BRIEF

Name: _____

Organization: _____

My inquiry brief

*This brief needs to be read by other persons, later on. Take that into account as you build it up.
Make sure you write everything in English.
Please write slowly and clearly.*

1. My passion is:

2. What is your wondering about? Purpose / context / why?

3. My personal first version of wondering / question is:

4. During the litmus test my wondering / question changes into:

5. Question / wondering after *Choosing the right question protocol*:

6. Data selection: 2 or 3 kinds from *Easy ways of gathering data* (or other)

7. How to analyse the selected sets of data (after the ATLAS protocol)

8. Data Collection: how many students, in which classes, etc: the reality of your context

9. Calendar: when/what? deadlines

Please fill in: I need help with ...

Please fill in: What this group needs to know about my proposed inquiry to be able to help me (background information) ...

Write down the summary of the remarks you got via the post-its.
This will define the latest version of this Inquiry Brief.

PROTOCOL: WHAT? SO WHAT? NOW WHAT?

Sources

The School Reform Initiative website: <http://schoolreforminitiative.org>
Developed by Gene Thompson-Grove, 2014; revised version 2012.

Purpose of the protocol

This protocol allows participants to connect to one another and to each other's work, while at the same time allowing all group members to get useful feedback. After establishing a preliminary version of an inquiry question or wondering for a practitioners inquiry, and the first personal check via the litmus test protocol that leads to a draft version, the protocol seeks to provide feedback on this question by the members of the PLC, leading to a "final" version.

Materials

The materials come from the participants contribution: their particular inquiry question, in the draft version.

Time

40 - 45 min.

Roles

Facilitator / timekeeper (who can also participate); participants.

Process

1. Introduction: There is an overall introduction of the protocol goals and steps. The group is divided into groups of 4. All participants take a turn facilitating, and all participants present. The facilitator also gives feedback. 3 min for organising and explaining this;
2. Participants individually outline a current inquiry question of their PI; (3 min.)
They answer 2 questions:
 - a. What question / challenge do I have?
 - b. So what, why is this important for me?
3. In rounds of 12 min.:
 - a. The first presenter explains their question/challenge, ending with a focus question. Participants in the group take notes, write questions; (2 min.)
 - b. Group asks clarifying questions; (2 min.)
 - c. Individuals in the group talk amongst themselves, while the presenter listens into the conversation, taking notes and considering new insights and possible next steps. The presenter is silent during this step. The group takes up each of the following questions in some way, along with any other focused discussion the presenter has asked the group to have:
 - i. 'What I heard the presenter say was ...'
 - ii. 'Why this seems important to the presenter is ...'
 - iii. 'What I wonder is ...' or 'The questions this raises for me are ...'
 - iv. 'What this means to me is ...'
 - v. 'What I might suggest is ...'(5 min)
 - d. Reflection by the presenter to the group – Now what? This means, after this discussion, what are the final options and adaptations the presenter will do to his inquiry question or wondering. (3 min.)

Repeat for each participant in the group. (approximately 12 min. per person)

References

The School Reform Initiative website: <http://schoolreforminitiative.org>

Exemplification

Quote: I used this twice in my PLG and it worked very well. Participants were surprised but at the end they recognized it was very efficient and to the point. The presenter picked up the information of the other members quickly.

The time schedule is strict. This causes some difficulties at the beginning. Also the “gossiping” phase can be difficult, in the sense that the peer group sometimes tries to engage the presenter in the discussion.

The timekeeper need to be someone from outside the group. Else time is not kept ...

I used this twice in my PLC and it worked very well. Participants were surprised but at the end they recognized it was very efficient and to the point. The presenter picked up the information of the other members quickly.

PROTOCOL:

INQUIRY BRIEF PEER FEEDBACK

This is closely related to the Inquiry brief itself.

Purpose of the protocol

To discover how an inquiry brief can be structured and to stimulate participants to write their own inquiry brief in a better way.

Sources

Dana, N. F., & Yendol-Hoppey, D. (2008). *The Reflective Educator's Guide to Professional Development: Coaching Inquiry-Oriented Learning Communities*. Thousand Oaks, CA: Corwin press, p. 105.

Materials

The inquiry brief of every participant.
Format for writing an inquiry brief.

Time

15 – 20 minutes per group member

Roles

Suggested group size: 4

1 timekeeper

1 presenter that - or present her/his own inquiry brief – or present the sample inquiry brief proposed in this document. The presenter knows the content of the inquiry brief.

Process

1. Select a timekeeper.
2. Presenter hands out a hard copy of the inquiry brief to each member of the group.
3. Group members silently read the inquiry brief, making notes of issues/questions they might like to raise in discussion with presenter (4 minutes). As group members read the brief, the presenter engages in a writing activity to complete the following sentences:
 - Something I would like help with on my inquiry brief is . . .
 - One thing this group needs to know about my proposed inquiry to better prepare them to assist me is...
4. At the end of the reading of the inquiry brief (or when it is clear that every member of the group has completed reading and taking notes on the inquiry brief, and the presenter has finished his/her response to the writing activity), the timekeeper invites the presenter to read his/her sentence completion activity out-loud. (No more than one minute).
5. Participants talk to each other as if the presenter was not in the room, while the presenter remains silent and takes notes. (10 Minutes)
Participants focus on each of the following:
 - Provide “warm feedback” on the inquiry brief. This is feedback that is positive in nature and identifies areas of strength. (1 – 2 minutes)
 - Address the area the presenter would like help on and discuss the following questions (8 – 10 minutes):
 - A. What match seems to exist (or not exist) between the proposed data collection plan and inquiry question?
 - B. Are there additional types of data that would give the participants insights into his/her question?

- C. Rate the “do-ability” of this plan for inquiry. In what ways is the participant’s plan meshed with the everyday work of a teacher?
- D. In what ways does the participant’s proposed time line for study align with each step in the action research process?
- E. What possible disconnects and problems do you see?

Time keeper asks presenter to summarize the key points made during discussion that he/she wishes to consider in refining his/her plan for inquiry. (1 Minute)

Exemplification

The groups need not to be closed. Inquiry briefs can be handed out randomly too. During international courses this was changed into a “ Inquiry brief feedback dance”, dancing to the right, then left, then further right again reading the 3 briefs that are closest to the owner. Conclusion: this feedback can be done in many different ways. Key element is the learning from the feedback.

SAMPLE INQUIRY BRIEF

Tom Beyer

High School English Teacher

Purpose

I love to read. I grew up with my parents reading to me at night and any other time I could persuade them to pick up a book. My love of literature and reading continued to grow throughout grade school and into high school. In college, it tapered off due to my course load, but I still found time to pick up a good book and get carried away to another world. Something has troubled me lately, and I want to gather some concrete data to either confirm my suspicions—or hopefully, prove them wrong. The rapid advances in technology have provided an increasing number of options available for students to spend their free time. As I thought about the things I had available to entertain me when I was growing up, I realized that the generation that is going through high school now has many more options than I had twelve years ago. When I was a senior, we still had regular pep rallies and a Friday night football game or basketball game was a major event where the community came together and supported the team—in other words: it was a priority. Similarly, if you weren’t going to a movie, shopping, or working: reading a good book was a viable option. The internet hadn’t taken a firm hold yet—libraries still served as the primary location for research (vice the family computer in the living room or a student’s laptop nowadays). Hence, the purpose of my study is to better understand the reading habits of the high school students that I teach—is their interest in reading tapering off?

Question

What are the reading habits of my high school students?

Method/Action

I teach approximately 100 students over my 4 periods of 12th Grade English. I plan to begin by interviewing one or two students from each of my different classes. Based on what I learn in the interviews, I will develop a survey to give out to all of my students and then I will analyze the results. I plan to conduct multiple workshops where the students read silently for a sustained amount of time, while I observe them. Workshops will be announced and I will take field notes on such areas as: what they are reading, how long it takes them to settle in, did they bring something to read, etc. I plan on holding a few open forums with each group to discuss their reading habits and interview a small sample of students to go beyond the survey questions. For the interviews, I will pick students from different ability groups and students who are achieving different grades and interview them as a small group and individually.

Data Collection

- o Observation/fieldnotes of reading workshops
- o Interviews
- o Open forums
- o Survey results
- o Any additional reflections from students
- o Discussions with peers about this Guided Inquiry

Calendar

January 2017

- Interview a few students from each class
- Develop and administer survey and review answers
- Look for patterns and trends in responses
- conduct Silent Sustained Reading (SSR) workshops

February 2017

- Conduct Silent Sustained Reading (SSR) workshops
- Conduct open forums
- Continue to collect data

March 2017

- Conduct small group and individual interviews
- Begin data analysis

April 2017

- Complete data analysis
- Write paper summarizing results to share with my peers and present my work at the Inquiry Showcase

PROTOCOL:

BLOCK PARTY ON PRACTITIONER INQUIRY

Sources

School Reform Initiative – adapted by Debbie Bambino from Kyleene Beers’ pre-reading strategies
Dana & Yendol-Hoppey, The PLC-book, 2016.

Purpose of the protocol

With the quotes the participants use during this protocol, the participants explore their prior knowledge on the subject of 2 pillars of the project of the guide namely professional learning communities PLC and practitioner inquiry PI.

PS Gathering quotes on any subject is possible

Materials

A set of quotes on practitioner inquiry and professional learning communities, noted on index cards.

Time

50 min.

Roles

Facilitator, participants.

Process

1. The facilitator writes quotes on index cards prior to the workshop. You may choose one quote per participant, or repeat some quotes;
2. Participants randomly select quotes/cards and spend a few minutes reflecting upon their quote’s meaning for them and their work; (3 min.)
3. Participants mingle and share quotes in pairs. Participants are encouraged to share with 3 other participants in 5 minute segments; (12 – 15 min.)
4. (Optional) Form triads or quads and share quotes and insights about the text and its implications for our work; (12 – 15 min.)
5. As a whole group, share ideas and questions raised by the experience. This can be done popcorn style or as a round, but is usually not a conversation; (10 min.)
6. The facilitator shares the source of the quotes, posting the link, distributing the article etc. for future work. (2 min.)

Addendum: quotes on practitioner inquiry

Practitioner inquiry - PI

Very simply put, inquiry is a way for me to continue growing as a teacher. Before I became involved in inquiry I’d got to the point where I’d go to an in-service and shut off my brain. Most of the teachers I know have been at the same place. If you have been around at all you know that most in-services are the same cheese – just repackaged. Inquiry lets me choose my own growth and gives me tools to validate or jettison my ideas (Kreinbihl in Dana & Yendol-Hoppey, 2014, p. 12).

Practitioner inquiry - PI

Teacher inquiry is not something I do; it is more a part of the way I think. Inquiry involves exciting and meaningful discussions with colleagues about the passions we embrace in our profession. It has become the gratifying response to formalizing the questions that enter my mind as I teach. It is a learning process that keeps me passionate about teaching (Hubbell in Dana & Yendol-Hoppey, 2014, p. 12).

Practitioner inquiry - PI

By embracing an inquiry approach, teachers expand their idea of what data is and how using data can inform their teaching and enhance student learning. The inquiry stance embraced by teacher researchers supports both data driven decision-making and progress monitoring (Dana & Yendol-Hoppey, 2014, p. 18).

Practitioner inquiry - PI

Teacher inquiry differs from traditional professional development for teachers, which has typically focused on the knowledge of an outside “expert” being shared with a group of teachers. This traditional model of professional growth, usually delivered as a part of traditional staff development, may appear an efficient method of disseminating information but often does not result in real and meaningful change in the classroom (Dana & Yendol-Hoppey, 2014, p. 13).

Practitioner inquiry - PI

While both the process-product and qualitative research paradigms have generated valuable insights into the teaching and learning process, they have not included the voices of the people closest to the children – classroom teachers. Hence, a third research tradition emerges highlighting the role classroom teachers play as knowledge-generators. This tradition is often referred to as ‘teacher research’, ‘teacher inquiry’, or ‘action research’ (Dana & Yendol-Hoppey, 2014, p. 8).

Practitioner inquiry - PI

This movement toward a new model of professional growth based on inquiry into one’s own practice can be powerfully developed, by school districts and building administrators, as a form of professional development. By participating in teacher inquiry, the teacher develops a sense of ownership in the knowledge constructed, and this sense of ownership heavily contributes to the possibilities for real change to take place in the classroom (Dana & Yendol-Hoppey, 2014, p. 13).

Practitioner inquiry - PI

You know that nagging that wakes you in the early hours, then re-emerges during your morning preparation time so you cannot remember if you already applied the deodorant, later on the drive to school pushing out of mind those important tasks you needed to accomplish prior to the first bell, and again as the students are entering your class and sharing all the important things happening in their lives.

Well, teacher inquiry is the formal stating of that nagging, developing a plan of action to do something about it, putting the plan into action, collecting data, analyzing the collected data, making meaning of your collection, sharing your findings and then repeating the cycle with the new nagging(s) that sprouted up (Huges in Dana & Yendol-Hoppey, 2014, p. 12).

Practitioner inquiry - PI

In general, the teacher inquiry movement focuses on the concerns of teachers (not outside researchers) and engages teachers in the design, data collection and interpretation of data around their question. Termed “action research” by Carr and Kemmis (1986), this approach to educational research has many benefits:

1. Theories and knowledge are generated from research, grounded in the realities of educational practices;
2. Teacher become collaborators in educational research by investigating their own problems;
3. Teachers play a part in the research process, which makes them more likely to facilitate change based on the knowledge they create.

(Daba & Yendol-Hoppey, 2014, p.8)

PROTOCOL: PEELING THE ONION- DEFINING A DILEMMA

Sources

School reform Initiative. Community of Learners. <http://www.schoolreforminitiative.org/protocols/>

Purpose of the protocol

To avoid the wish to “solve” the problem before the dilemma has been defined.

Most people are eager to solve dilemmas before understanding what their true meaning is. This exercise is designed to help peel away the layers of the problem in order to address the deeper issues that lie underneath the surface.

Materials

A dilemma concerning the teacher’s belonging to the group, professional activity, his/her problem at hand.

Time

You will need approx. 40 min. This can be adjusted to fit the available amount of time and the number of people in the group.

Roles

Facilitator, presenter, group members.

Process

1. The teacher with a dilemma / problem - the presenter - describes it and asks a question to help focus the group’s responses; (5 min.)
2. Group members ask clarifying informal questions from the presenter; (3 min.)
3. In turns, each participant speaks to the same prompt. During the turns the presenter remains silent and takes notes. Facilitator may choose to repeat a round if new responses are emerging.

Examples of prompts

“What I heard (the presenter) say is ...”

- “One assumption that seems to be part of the dilemma is ...”, or “One thing I assume to be true about this problem is ...”;
 - “A question this raises for me is ...”;
 - “Further questions this raises for me are ...”;
 - “What if ...?” Or, “Have we thought about... ?” Or “I wonder ... ?”
4. Presenter reviews her/his notes and reflects aloud on what he/she is learning. The group members are silent and take notes.

PROTOCOL: CONSULTANCY

Please go to the [SRI Link](#).

PROTOCOL:

EASY WAYS TO COLLECT DATA DURING YOUR WORK AT SCHOOL

Sources

Inspired by: Dana, N.F., & Yendol-Hoppey, D. (2008) The reflective educator's guide to professional Development: coaching Inquiry-Oriented Learning Communities. Thousand Oaks, CA: Corwin press

Purpose of the material

To discover different ways of data collection

- This material has been developed to support teachers in collecting data during their practitioner inquiry. When teachers decide to do practitioner inquiry, they start with formulating a question about their practice. Once their question is clear and concise, they can collect data.
- This material gives an overview of the different kinds of data that teachers can collect. The material gives also suggestions on how to work with the material in school teams.

After the collection of data, teacher - inquirers analyse the data, decide on what they will do based on the analyse of the data and share their findings with colleagues.

How you can use this material in your practice

Two possibilities:

1. Cut out the twelve different ways of data collection and put them on several tables in the meeting room;
 - A. Make twelve groups (f.i. 24 participants = 12 groups of 2);
 - B. Each group go from table to table and read the different ways of data collection;
 - C. After having read a way of data collection, they discuss on how they can use this way of data collection in their practitioner inquiry.
2. Cut out several times the twelve ways of data collection and put them in stacks of 4 (f.i. 1 – 4, 5 – 8, 9 – 12)
 - A. Make groups of 3 participants;
 - B. Each participant of each group reads a stack of 4 ways of data collection (f.i. cards 1 – 4) and he/she gets the task to explain the content of what he/she has read to the other 2 colleagues;

Participants tell to the other participants of each group what they have read.

1: Field notes

To capture action in the classroom, many teacher researchers take field notes as they observe. Field notes can come in many shapes, forms, and varieties. Some of these include scripting dialog and conversation, diagramming the classroom or a particular part of the classroom, noting what a student or group of students are doing at particular time intervals (e.g. every two minutes), and recording every question that a teacher asks. Field notes are not interpretations but rather focus on capturing what is occurring without commenting as to why the action might be occurring or how one judges a particular act.

The forms that your field notes take depend on your wondering.

3: Interviews

Teacher talk is important! As talk is crucial to the life of a teacher, capturing talk can be an important form of data collection. Field notes are one way to capture talk that occurs naturally in the classroom. Some teachers-inquirers go a step further than naturally occurring classroom talk by interviewing as well. Interviewing can be informal and spontaneous or more thoughtfully and planned.

5: Digital pictures

Interviews and focus groups can capture words as data. A very old proverb you are likely familiar with is 'a picture is worth a thousand words.' Another wonderful way to capture action that occurs in the classroom as data is through digital photography.

2: Documents/artifacts/student work

Field notes capture actions as data on paper. However even without field notes, schools and classrooms naturally generate a tremendous paper trail that captures much of the daily classroom activity. The paper trail includes student work, curriculum guides, textbooks, teacher manuals, children's literature, individualized education plans, community memos, parent newsletters, progress reports, teacher plan books, written lesson plans, and correspondence to and from parents, the principal, and specialists. The amount of paperwork that crosses a teacher's desk can make any teacher bleary eyed. Often the papers teachers view do not hold significant meaning when read in isolation or when quickly in order to be able to hand them back in the morning. Teachers need to 'get through' paperwork in order to keep up with their work.

Yet, when teaching and inquiry are intertwined with one another, the papers become data and take on new meaning. When teacher-inquirers select and collect the papers that are related to their research wonderings, we call these papers documents and artifacts. Systematically collecting papers provides you with the opportunity to look within and across these documents to analyze them in new and different ways.

4: Focus groups

Focus groups offer teachers another vehicle for collecting the talk and thoughts of children in the classroom. In many ways, focus groups occur daily in the form of whole-class or small-group discussion. The focus-group discussion can serve as a tool for understanding students' perceptions. For example, a focus group can provide insight into how students experience a new instructional strategy.

6: Video as data

Digital pictures capture a single snippet of action in the classroom at one point in time. Video as a form of data collection takes digital pictures one step further by capturing an entire segment of action in the classroom over a set time period. Given that teachers often collect their best data by seeing and listening to the activities within their classroom, video becomes a powerful form of data collection for the teacher researcher. Teacher researchers have found that using video can help them collect descriptive information, better understand an unfolding behavior, capture the process used, study the learning situation, and make visible products or outcomes. More specifically, through observing video of one's own teaching, teachers can observe attitudes, skill and knowledge levels, nature of interactions, nonverbal behavior, instructional clarity, and the influence of physical surroundings.

8: Weblogs

Similar to a journal, weblogs are another excellent way teacher researchers can capture their thinking as an inquiry unfolds. Weblogs are easily created, easily updateable web sites that allows an author (or authors) to publish instantly to the Internet from any Internet connection. As blogs consist of a series of entries arranged in reverse chronological order, they can serve as a sort of "online diary" where teacher researchers can post commentary or news about the research they are currently engaged in. Unlike the journal as a form of data collection, the teacher researcher who blogs can combine text, images, and links to other blogs as well as post comments in an interactive format. The comment feature of blogs provides the opportunity for teacher researchers to receive feedback from anyone in the world (in an open blog community) or teacher researchers (in a closed community).

7: Reflective journals

Strategy 1 to 6 are ways to make data collection a part of your teaching by capturing what naturally occurs in your teaching day – action in the classroom through field notes, digital pictures, and video; student progress in your classroom through document analysis; and talk in the classroom through interviews and focus groups. One of the ways that interviewing and focus groups serve as powerful data collection strategies is through the talk of interviewing, because a teacher-inquirer gains access into the thinking of the child or adult being interviewed.

Capturing "thinking" is a challenge for any researcher. One way a teacher researcher captures the thinking that occurs in the school and classroom within his or her own mind is through journaling. Journals provide teachers a tool for reflecting on their own thought processes and can also serve as a tool for students to record their thinking related to the project at hand.

9: Surveys

Some teacher-inquirers employ more formal mechanisms (such as sociograms and surveys) to capture the action, talk, thinking, and productivity that are a part of each and every school day. The most common formal mechanism we have observed in our work with teacher-inquirers is surveys. Surveys can give students a space to share their thoughts and opinions about a teaching technique or strategy, a unit, or their knowledge about particular subject matter;

10: Quantitative measures of student achievement

In this area of high-stakes testing and accountability, numerous quantitative measure of student performance abound, and these measures can be valuable sources of data for the teacher-researcher.

11: Critical friend group feedback

Using multiple sources of data is important. An additional way of data collecting is through critical friend group feedback. Critical friend groups are one version of professional learning communities. A professional learning community is consisting of educators who come together voluntarily at least once a month for some hours. Group members are committed to improving their practice through collaborative learning.

12: Literature as data

Although we often do not think of literature as data, literature offers an opportunity to think about how your work as a teacher-inquirer is informed by, and connect to the work of others. No one teaches or inquires in a vacuum. When we engage in the act of teaching, we are situated within a context (our particular classroom, grade level, school, ...), and our context mediates much of what we do and understand as teachers. Similarly, when teachers inquire, their work is situated within a large, rich, preexisting knowledge base that is captured in such things as books, journal articles, newspaper articles, conference papers and Web sites. Looking at this preexisting knowledge base on teaching informs your study. All you need to figure out is which pieces of literature connect to your wonderings and will give you insights as your study is unfolding. Teacher-inquirers generally collect literature at two different times.

- When they define or are in the process of defining a wondering and
- As their studies lead them to new findings and new wonderings.

In these cases, teachers use the literature to become well informed on what current knowledge exists in the field on their topic. Literature is an essential form of data that every teacher-inquirer should use so as to be connected to, informed by, and a contributor to the larger conversation about educational practice.

13 Quantitative data 1

Dates related to the pupil or class: reports, exams, from this year or previous years. Daily Work, reports, homework

Absences of pupils, illnesses, other data not related to learning itself. Attention for privacy.

14. Quantitative data 2

Dates at school level: as provided by the department: national exams, results. These concern inflow, outflow, pupil career, certificates, dates per discipline, degree or whole school. Also pass grades for secondary education. These data are anonymized, relate to overall pupil numbers and go back 3 to 5 years.

PROTOCOL: ATLAS FOR DATA ANALYSIS

Sources

National School Reform Faculty (www.nsrharmony.org).

Purpose of the protocol

The main goal is to develop in the participants the ability to reflect on the research data.

Since in the Linpilcare project teachers are educated to work more evidence-informed, it is clear that evidence should be extracted from data, by drawing conclusions. However, this is a very difficult part, since teachers are not really experts in this. The Atlas protocol helps them to train their own skills, and to learn from how other members of the PLC do it.

Selecting data to share is the centrepiece of the group discussion. The following guidelines can help selecting data or artefacts that will promote the most interesting and productive PLC discussions. Data or artefacts that do not lead to a single conclusion generally lead to rich conversations. For example: answers to rather open questions.

Sharing and discussing data of different kinds sometimes make people feel “on the spot” or exposed, either for themselves, for their students or for their profession. Trust is needed in the group, and in addition, the use of a structured dialogue format provides an effective technique for managing the discussion and maintaining its focus.

Materials

No external materials, the participants materials / data serve as centrepiece.

Time

60 min.

Roles

Facilitator - reminds the group of the norms. Is also timekeeper.

Presenter - providing the data set, gives a very brief statement of the data and avoids explaining what he/she concludes about the data.

Process

1. Getting Started

- The facilitator reminds the group of the norms. Note:
- (Each of the next four steps should be about 10 min. in length. It is sometimes helpful for the facilitator to take notes);
- The educator providing the data set gives a very brief statement of the data and avoids explaining what he/she concludes about the data if the data belong to the group rather than to the presenter.

2. Describing the Data (10 min.)

- The facilitator asks: “What do you see?”
- During this period the group gathers as much information as possible from the data;
- Group members describe what they see in data, avoiding judgments about quality or interpretations. It is helpful to identify where the observation is being made
e.g., “On page one in the second column, third row ...”;

- If judgments or interpretations do arise, the facilitator should ask the person to describe the evidence on which they are based;
- It may be useful to list the group's observations on chart paper. If interpretations come up, they can be listed in another column for later discussion during step 3.

3. Interpreting the Data (10 min.)

- The facilitator asks:
 - “What do the data suggest?”
 - Second question: “What are the assumptions we make about students and their learning?”
- During this period, the group tries to make sense of what the data say and why. The group should try to find as many different interpretations as possible and evaluate them against the kind and quality of evidence;
- From the evidence gathered in the preceding section, try to infer: what is being worked on and why?
- Think broadly and creatively. Assume that the data, no matter how confusing, makes sense to some people; your job is to see what they may see;
- As you listen to each other's interpretations, ask questions that help you better understand each other's perspectives.

4. Implications for Classroom Practice (10 min.)

- The facilitator asks:
 - “What are the implications of this work for teaching and assessment?” - This question may be modified, depending on the data.
- Based on the group's observations and interpretations, discuss any implications this work might have for teaching and assessment in the classroom. In particular, consider the following questions:
 - What steps could be taken next?
 - What strategies might be most effective?
 - What else would you like to see happen? What kinds of assignments or assessments could provide this information?
 - What does this conversation make you think about in terms of your own practice? About teaching and learning in general?
 - What are the implications for equity?

5. Reflecting on the ATLAS-Looking at Data (10 min.)

Presenter Reflection:

- What did you learn from listening to your colleagues that was interesting or surprising?
- What new perspectives did your colleagues provide?
- How can you make use of your colleagues' perspectives?

Group Reflection:

- What questions about teaching and assessment did looking at the data raise for you?
- Did questions of equity arise?
- How can you pursue these questions further?
- Are there things you would like to try in your classroom/context as a result of looking at this data?

Exemplification

Organized data collection enabled teachers to find out what students were learning as well as to break down unsubstantiated assumptions and beliefs.

Teachers tested this tool almost at the end of their training, applying the ATLAS protocol during the development of their action-research work included in the subgroups that constituted small learning communities (PLCs).

The guidelines of the protocol allow for conductive reflection on a process of proposals for more effective improvement strategies.

The protocol has many possibilities: in can be adapted to the users' needs in many ways

During the Linpilcare international course it is used as follows: all participants gave an answer to one burning question posed by one of the participants. All these answers were seen as the data to work with. For this purpose, the protocol was adapted slightly.

INFORMATION SHEET: ADDITIONAL DATA ANALYSIS ADVICE

Source: <http://www.linpilcare.eu/images/TOOLS/129/129.pdf>

Part of doing practitioner inquiry is collecting data. Data can consist of numbers ('quantitative data') but in most cases your inquiry data will have a different form, for instance video recordings, written statements, descriptions of situations, etc.. ('qualitative data'). This tool is aimed exclusively at analyzing qualitative data.

1. Selecting what is relevant

At first glance, you will probably realize that not all of your data are relevant or helpful in answering your research question(s) or in exploring your wonderings. It is therefore important to review your data and make sure to select only the parts of your data that (potentially) contribute to answering your research question. When you are dealing with audio recordings of a conversation for instance, you can do this by selecting, and then writing down or typing, relevant fragments. Make sure however that it is still possible to understand the context and scope of each individual fragment. Because of this, it is sometimes necessary to add some remarks to a fragment to make this clear. Please beware however to never change the original data itself. When you have finished this step, you will have a selection of fragments.

2. Reviewing the fragments

Review all the fragments you have selected in step 1 once more. By doing this, you will get a better general overview of your data. In most cases, you will notice that going through your data already triggers ideas about how to categorize or structure them. Undoubtedly, some fragments will be quite similar and others can be contradictory. This is not a problem but merely indicates differences, e.g. between students or colleagues.

3. Arrange the fragments

Based on what certain fragments contribute to answering the research question, you group them into categories. These categories largely arise from your view on the data fragments that you selected and reviewed. It is also possible that, while reviewing the fragments, a certain educational model you heard or read about in the past, and that really seems to fit the data, comes to mind. You could then use this model to make categories.

4. Label the categories

So now you have the fragments you selected, structured in categories. The next step is to label the categories. Sometimes this makes it necessary to rearrange some of the fragments into new categories. In the end, you will have a limited number of categories, each containing interrelated data fragments. It is possible at this point that some of your categories are so similar that it would be better to merge them into one new category. Or maybe it is the other way round and you can decide to break up a single category into two or more. **Two comments to these steps:** In a lot of cases it is inevitable to create a category labelled something like 'other fragments'. After creating such a category it can be very tempting to put a lot of fragments that you are not entirely sure about, into it. The challenge is however to leave this category as small as possible. If you feel that it is necessary to place a lot of fragments into the 'other fragments' category then this is a sign to review and optimizing your entire structure of categories. It is also important to make sure that you don't end up with too many (e.g. more than 10) or too few (e.g. only one or two) categories. If you have too many categories, each of them will logically only contain a small number of fragments. It is also harder to report about this. If you have a very limited number of categories, the categories tend to be too broad. In that case it is better to break up categories.



REFLECTION TOOLS

PROTOCOL: EVALUATION WITH THE HELP OF A PLUS-DELTA

PROTOCOL: FEEDBACK WITH THE HELP OF EXIT TICKETS

PROTOCOL: PAPER TWITTER

PROTOCOL: EVALUATION WITH THE HELP OF A PLUS-DELTA

Sources

Data Wise, Harvard edu - <http://online-learning.harvard.edu/course/introduction-data-wise-collaborative-process-improve-learning-teaching>

Purpose of the protocol

The plus-delta protocol is a very simple, formative evaluation method of a (PLC) workshop.

Materials

For each participant a piece of paper with 2 columns

Plus	Delta
What is going well and what are the benefits of this workshop	What could improve the workshop and how could you change it in order to make the workshop better

Time

20 min.

Roles

- Facilitator;
- Timekeeper;
- Presenter;
- Participants.

Process

- At the end of a (PLC) workshop the facilitator provides for each participant a piece of paper divided in two columns and explains the concept of plus and delta:
 - o The Plus identifies what is going well and what are the benefits of this workshop;
 - o The Delta identifies what could improve the workshop and how it could be changed to make it better. (2 min.)
- Each participant fills in the plus-delta paper; (4 min.)

- The participants work in groups of 4 and they: (8 min.)
 - Share their plus/delta findings;
 - They get consensus on what they will bring in the whole group;
 - The presenter notes their consensus.
- Each presenter presents to the whole group the consensus on the plus and the delta. The facilitator notes the results on a paper; (3 min.)
- The facilitator leads the discussion on what the group will take on board during the next workshop. (3 min.)

Exemplification

This is a quick way to evaluate a (PLC) workshop.

The protocol puts the focus on positive aspects and mutual objectives towards good (PLC) workshop. It is a format to be used in an atmosphere with trust, openness and honesty.

The (PLC) members can be asked at a certain time to evaluate this way of working.

PROTOCOL: FEEDBACK WITH THE HELP OF EXIT TICKETS

Sources

Nelson, 2014; Leahy, Lyon, Thompson & William, 2005; Owen & Sarles, 2012.

<https://www.edutopia.org/practice/exit-tickets-checking-understanding>

Purpose of the protocol

- To give evidence in order to make the necessary improvements to a next PLC workshop.

Materials

Exit tickets prepared by the facilitator before the workshop. The content of the exit ticket is in line with the focus of the PLC.

Exit tickets can contain:

Open-ended questions, multiple-choice or true-false statements;

- The facilitator can ask to write down some words or definitions from something he/she writes on the board;
- The facilitator can ask the PLC members to write down something of their own choice but in line with the content of the PLC.

Time

15 min.

Roles

- Facilitator;
- Presenter;
- Participants.

Process

The facilitator prepares the exit-tickets before the workshop. The content is in line with the focus of the PLC. The exit ticket is distributed during the last minutes of the workshop.

- The facilitator explains the aim of the protocol and distributes the exit-tickets; (1 min.)
- The participants fill in their exit ticket; (3 min.)
- The participants share in groups of 4 the content of their exit ticket. They get a consensus on the content and the presenter notes the consensus; (5 min.)
- Each presenter presents the consensus to the whole group; (3 min.)
- The group decides how they will improve as learning community during the next PLC. (3 min.)

Exemplification

This is an (informal) strategy used to check participants focus and can serve as a scaffold towards developing their own achievement monitoring (Fisher & Fray, 2007). On the long term it can create a consistent, feedback-rich environment. Exit tickets provide time for participants to reflect on what they know and to return to a larger project and revise their thinking, essential for reflection.

The PLC can look at patterns in thinking. While they work on the exit tickets, they reflect on how they might improve the next PLC.

Exit ticket questions should be structured to reflect the goals of the PLC, the information will help the participants to get more and better connected to the objectives of the PLC.

Debrief

This is a quick way to find out if the PLC is learning and evolving at the same pace. It is important to create a safe environment for this method and the facilitator needs to make sure that the PLC members don't experience this as a kind of "exam".

The PLC members can be asked at a certain time to evaluate this method.

PROTOCOL: PAPER TWITTER

Sources

Lesničar, B. (2017), Paper Twitter. Ljubljana: Zavod RS za šolstvo

Purpose of the protocol

You can use this tool as a debriefing activity. All the participants write a few words about the content and usefulness of the activity. They also describe how they felt in the process. They can conclude their note by writing what was positive/negative and suggest changes.

Materials

- A piece of paper

Time

10 min.

Roles

- Facilitator;
- Participants.

Process

Steps:

The facilitator leads the activity. He/she asks the participants to make a short note about:

- The contents of the activity
- The usefulness of the activity
- How they felt during the activity
- Positive/negative feedback
- Suggestions

PARTNERS IN THE PROJECT:



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UC Leuven
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MOVING MINDS



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