4   Mental Mapping Response Method –
a Collective Decision for an Intervention

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This chapter presents the Mental Mapping Response method (the MMR method), which was applied in the seven innovation schools in School-In. The method was designed to provide the teaching staff with a sense of ownership in the School-In innovation by making different opinions on the school's mapping results transparent, and by supporting the teaching staff in deciding on a development area.

Different theories and methods build the framework of the MMR method (Hillen, 2020). When applying this method, the school's profile and characteristics first need to be screened and analysed to generate data that can be contrasted, discussed, and reflected on. All kinds of results are of interest in this first phase of analysis, including the findings from the teaching staff's and students' questionnaires, student achievement data, evaluations, focus group interviews, the local expert interview, student group interviews and more (chapter 7–10). School results from other research (national tests and surveys, for instance) may also be of some interest.

Next, the school's teaching staff participate in discussions on the findings. The point of this method is the arousal of cognitive dissonance by presenting statements from research that create tension for the participants. Using the MMR method, the school's most striking findings are extracted and presented to the teaching staff in comparison to important characteristics of inclusive schools known as advantageous from research on inclusion (Ainscow, 2005; Göransson & Nilholm, 2014; Nilholm & Göransson, 2013). The discomfort, perceived individually and by groups, arises from being confronted with the 'uncomfortable truth' derived from the data by the research group and presented as highly condensed statements triggering the staff's involvement. Participating in discussions and exchanging opinions are prerequisites for fruitful reflection and for the staff's discovery of potential improvements in the school culture; in this case, changes in the school's expectation structures.

4.1   Framework of the MMR method

The overall aim of the MMR method was twofold. The first aim was to contribute to start a democratic process by highlighting the staff's differing opinions on the school's mapping results. The second aim was to achieve a meaningful experience of the inno-

vation, a 'consensus', and shared expectations for a development area for their school. Both aims were met through discussions on the research findings.

Research from other projects has revealed that commitment to implementation depends on how teachers identify with the project (Fischer, Kobarg, Dalehefte & Trepke, 2013), and that teachers feel more valued when the school provides the staff with opportunities to actively participate in school decisions (Burns & Darling-Hammond, 2014). The project School-In fostered a democratic process in which different views were open for discussion and valued regardless of the position of the person holding that view, as a teacher or as a paraprofessional. The colleagues were to have equal rights and opportunities to participate and be heard in the decision-making process for a development area. Thus, the process guaranteed everyone a chance to be heard, to contribute insights, and to be informed of the perspectives and expectations of other colleagues, and perhaps to change their opinions. This approach was the starting point for a collective and reflective process towards a common understanding to facilitate involvement, joint responsibility, and ownership of processes of change (Dalehefte, Kristiansen, & Midtsundstad, 2018; Hillen, 2020).

This democratic method formed the basis for agreeing on a development area for each school, with much time and effort being invested in reaching a consensus. Collaborative work can support and foster school development but does not guarantee effective school development per se. Collaboration has to be organised on jointly agreed objectives: a 'consensus' of the teaching staff's collegium (Hargreaves, 1995b). As Habermas mentioned, consensus cannot be forced; it can be reached in a dialogic process of mutual understanding and negotiation based on free will. This is in line with Habermas' paradigm of communicative action (Habermas, 1981).

Habermas' paradigm of communicative action (1981) implies social action as a prerequisite for agreed collaboration. 'Communicative action' is an understanding-oriented approach (Habermas, 1999, p. 143). Language is used as a source of social integration (Habermas, 1999). This means that the listener of free will is motivated and recognises the matter being discussed (Habermas, 1999). The teaching staff's collaboration, understood as collegial collaboration (Hargreaves, 1995a, b), can become a communicative action where the actors jointly try to create a mutual understanding and agreement. Hence, free will is decisive for agreed consensus. An agreement cannot be imposed on one party by another. Pressuring teachers to participate has been criticised because it will force teachers against their will (Stoll et al., 2006; Hargreaves, 2014) and is, thus, counterproductive for mutual understanding. This kind of mutual understanding builds the platform for the actors' actions.

In reference to counterproductive collaboration, Hargreaves states: 'Collaboration is superficial if it lacks purpose and direction, that is, wasteful and pointless' (Hargreaves, 1995a, p. 40). If it is conducted for its own sake without regard to context or purpose it is 'a dangerous educational principle' (Hargreaves, 1995a, p. 42). He stresses that 'collegiality, far from being a synonym for collaboration, invokes an institutional structure – the collegium, or organised society of persons performing

certain common functions …' (Hargreaves 1995a, p. 31). In his literature review, Shah (2012) also highlights the importance of collegiality for school development.

As a conclusion for school development sensu Hargreaves, it is necessary to: (1) create commitment to a shared vision for the school; (2) provide teaching staff with a clear purpose and direction, and thus potentially strong morale; and (3) co-ordinate policies to create a consistent environment and expectations for teaching staff and students. Regarding teaching staff and their commitment to an implementation process, this depends on the extent to which they identify with the project.

It needs to be stressed that *all* teachers and paraprofessionals must focus on the ownership of a school reform concept that can become well implemented (Fullan, 2010). Thus, the MMR method fosters educational change through both (1) collective meaning-giving; and (2) personal sense-making, as Geijsel and Meijers (2005) suggest.

The MMR method originates from various theories, theoretical frameworks, established methods and models, and has been further developed by the research group. The method was initially named 'Metaplan', but the 'Metaplan method' had been introduced by Schnelle already in 1978. Here, it referred to an approach aimed at supporting brainstorming using wall-mounted sheets and visualisation of the final, overall view (meta-view) on cards or sheets of paper, with no evaluation of the ideas. Therefore, the Metaplan concept was inappropriate for the intention of our project. Using the terms 'mapping' or 'mental mapping' only was not appropriate either due to their link to a well-known individual representation approach by Tony Buzan (2006) referred to as the 'Mind Mapping' technique. In addition, these terms would be inadequate for the project's purpose and neglect the need for response and reflection. Finally the process was named the 'Mental Mapping Response method'. It consisted of a combination of four different approaches: (1) the 'Dialogue Consent Method'; (2) 'Mental Models'; (3) 'Cognitive Dissonance'; and (4) the Norwegian-IGP approach.

Core elements of the MMR method are visualisation and reflection. The so-called *Dialogue Consent Method* (Groeben & Scheele, 2000; Scheele & Groeben, 1988; Scheele, 1992) is a genuine psychological approach used as an empirical tool to reveal teachers' subjective theories (Dann, 1994; Helmke, 2015). It contributes to making thoughts visible, and herby, to 'grasping' them, becoming aware of them, and finally adapting or changing them.

Cognitive psychology defines *Mental Models* as one way of illustrating thought processes (Johnson-Laird, 1983). In short, these Mental Models are representations of thought patterns that guide human action. Empirical research has shown that these are used even if they are flawed or inappropriate (Mandl & Spada, 1988), implying that Mental Models need to be elaborated and improved (Hillen, 2004) to be applicable and useful in a certain context. Reflection is one of the prerequisites for change and elaboration (Schön, 1017; Hillen, 2004; Wackerhausen, 2006).

The third approach refers to *Cognitive Dissonance*. Cognitive Dissonance is a psychological construct referring to mental discomfort or a form of psychological stress experienced by a person who simultaneously holds two or more contradictory be-

liefs, ideas, or values (Festinger & Carlsmith, 1959; Perlovsky, 2013). The intentional induction of this arousal of conflicting experiences, statements, or values helps with revealing and then discussing them. The dissonance drives people to (cognitive) action. Festinger (1964) explains this as the motivation of a person to try to reduce the dissonance and achieve consonance.

The fourth related approach is the so-called IGP method, which is a method for organising discussions, (dis-)agreement, and joint decision-making using different phases and social situations (Ertesvåg & Roland, 2013). Short for 'individual, group, and plenary work', IGP is characterised by shifts between individual work, group work, and plenary work through phases of reflection, discussion, and agreement.

4.2   Application of the Mental Mapping Response method in School-In

In School-In, the purpose of the MMR method was to establish a joint development area for the whole staff, allowing everyone to express opinions and views and thus build a foundation for discussion. The application of the method included several types of social situations that structured the method's application process. The process was adapted from the core idea of the IGP method related to phases of individual work, group work, and plenary work. In School-In, the MMR method's process consisted of four phases: (1) individual work; (2) group response; (3) plenary session; and (4) plenary decision-making. A closer description of these phases is presented in the following sections.

The starting point was the result of the school mapping process, which consisted of data from the local expert, the student interviews and questionnaires, the teaching staff's questionnaire, and focus group data. The results were presented and explained by the research group before the MMR method was introduced to the teaching staff. The teaching staff were then divided into groups and accompanied by one of the School-In researchers who facilitated the process according to standardised rules; these are presented below. The groups went to their separate rooms to reflect on and discuss the findings and finally agree on how relevant the results were for their school and future work. This is where the MMR method began.

4.2.1   Phase 1 – individual quiet work

The eight most striking findings concerning the school's comparison with inclusive characteristics were formulated as dissonance-creating statements by the research group. These statements were placed in written form on the table and were meant to trigger reflection and engagement through cognitive dissonance and arousal. Even though the staff members often wanted to begin the discussions immediately, the accompanying facilitating researcher instructed them to first work individually, quietly reading and reflecting on the various statements. Every participant judged each statement by writing it down on a paper card with a specific colour signifying his or
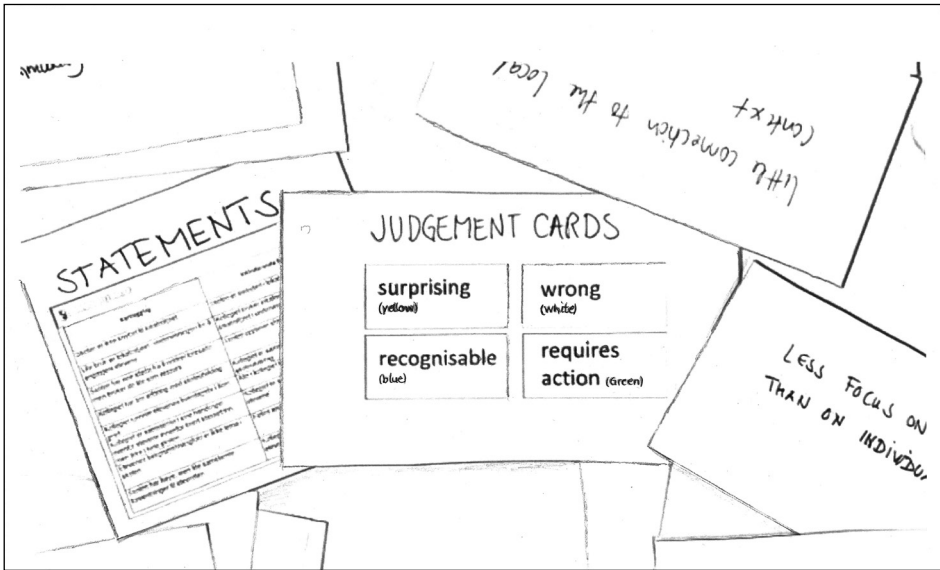
Figure 4.1: Work with statements and judgement cards

her opinion on the statement. The facilitator provided the group participants with an illustration showing the meaning of the colours (white = statement is *wrong*; yellow = statement is *surprising*; blue = statement is *recognisable*; and green = statement *requires action*).

The group participants were asked to work individually and write each statement on a paper card of a colour that indicated whether they felt it was surprising, wrong, recognisable, or required action and further work in the future. Because eight statements were developed, the process was limited to a maximum of eight paper cards per participant.

4.2.2   Phase 2 – group response

The group facilitator from the research team sorted the paper cards according to their colour and explained the next step of the process, which was to agree on two statements per colour. The group was to bring two cards of each colour into the plenary session. The discussions started with the statements on the white cards judged as 'wrong'. The role of the group facilitator was to initiate the discussions, distribute the white cards on the table, and let the participants make their decisions themselves. The group members had to agree and select two white statements. Afterwards, the group continued with the yellow cards and then moved on to the blue cards, with the statements on the green cards being discussed last. This meant that each person in the group needed to argue, justify, and rethink their judgment, share their opinions, and contribute to the group discussion. Finally, the group had to choose two paper cards
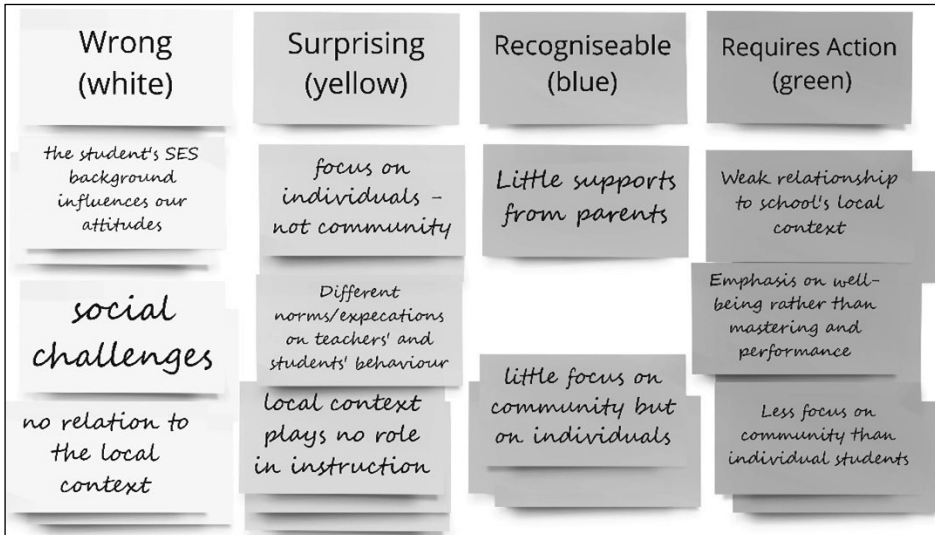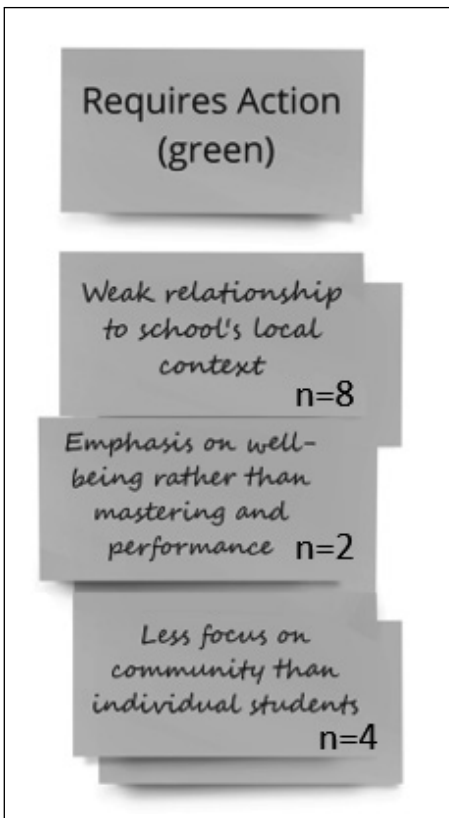
Figure 4.2: Plenary poster

Figure 4.3:
Topics judged as 'Requires Action'
by the teaching staff

Figure 4.4: Topics identified as 'Requires Action' were voted for and chosen by the staff

of each colour representing the statements the group felt best matched the colour's meaning.

During the break afterwards, the group facilitators from the research team clustered the selected paper cards on a large wall-mounted paper sheet (plenary poster), grouping the cards according to colour (figure 4.2). Overlapping cards indicated that more than one group had chosen the same statement. More paper cards with the same statement were taken into account by referring to the frequency of this statement. This was an indicator of how this statement had been valued across all groups.

4.2.3 Phase 3 – plenary session

In the third phase, all groups met again in the plenary. The group assessments were all shown together on the plenary poster, with the overall results being presented by the research group. The MMR method thereby contributed to visualising diversity and consensus in the teaching staff with respect to the various statements. The method also elucidated which statements the teaching staff preferred, selected, and above all, felt 'requires action' (green cards, figure 4.3).

4.2.4 Phase 4 – plenary work

During the final phase, the teaching staff decided on a development area for the school. In this process, all areas represented by green 'requires action' cards on the plenary poster were presented as options to choose as the development area.

In preparation for the vote, the research team pinned each 'requires action' statement to a wall-mounted sheet of paper containing a circle (figure 4.3.). Each teacher and paraprofessional received one pink sticky note as a ballot. The teaching staff were encouraged to mingle, talk, and discuss the pros and cons of the statements on the green cards with their colleagues before making their individual choice. The staff members each placed *one* pink sticky note in a circle, to indicate the topic they would prefer to work on within the School-In project.

After the count of ballots, one topic usually stood out as the chosen development area. If two topics received approximately the same score, the selection process was repeated and the staff voted on the two remaining topics. If the final vote was a tie, the development area was formulated from *both* topics mentioned on the green cards.

Finally, a collective decision for the intervention in School-In was made. This was the *development area* agreed on by the teaching staff through a stepwise, democratic decision-making process, which was also the point of departure for the intervention in School-In. Table 4.1 provides an overview of the chosen development areas of the seven innovation schools.

Table 4.1: The development areas of schools, chosen through the Mental Mapping Response method

	Development area
1	Common expectations for the student role
2	Stronger focus on school community for *all* students
3	A place for everyone – co-creation of community and the school's reputation
4	Use of the local community and parents as resources for the school
5	Creative and professional development within the school community
6	Jointly inspire students to engage and participate using the local community
7	Together on common expectations for the school's student role

4.3 Implications for further research and school development

Overall, this chapter shows how the MMR method contributed to involve the whole teaching staff, and how much time and effort was invested in identifying a development area with which the majority of the school staff could identify. This is in line with research which stresses the importance of involving the teaching staff in decisions concerning school development (Fischer et al., 2013). Our claim is that these processes are essential for the teaching staff to get to know the variety of opinions, perspectives, and expectations among colleagues and to gain ownership and acceptance of School-In's implementation activities. The processes gave the teaching staff an opportunity to reflect on needed development in their school, without being limited to their own class and teaching. The MMR method proved to be a valuable approach for disturb-

ing ingrained assumptions about schools and to initiate a collective decision-making process to choose a development area. The method showed how teaching staff as a community can organise and initiate development processes in their own school and is not limited to the topics focused on within School-In. The research team's hope is that schools will benefit from the tool, use it for other purposes, and adapt it to a variety of school development initiatives. It would be of interest to prove the effect of the method in future research on implementation.

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