

## THE METHODOLOGY OF ACTION RESEARCH (AR) AND THE IMPACT ON TEACHERS' PROFESSIONAL DEVELOPMENT

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### Abstract

The incorporation of AR into the way of work of in-service teachers is based on the approach by which teachers should be part of knowledge-creating communities and not only engage in knowledge 'conveyance'. The generated research knowledge serves as leverage for professional development and promotes teachers' self-efficacy processes, while taking part in the development and change of knowledge, and in integrating the research process with the teaching. This incorporation promotes teachers' professional development and contributes to the system's quality.

This study was conducted among 44 teachers who engaged in AR. The study data were obtained from the analysis of these ARs. The data focused on elements that serve as guidelines for the ARs, such as the definition of the problem, the intervention plan, the examined issue, the research's target audience, the research partners and social-emotional learning (SEL) expression in the action research. The teachers also shared their insights from the AR – these insights served as basis for the collection of statements.

The research questions were:

1. What characterizes the action research conducted by teachers in their educational environment?
2. Is SEL expressed in the action research proposed by the teachers, even if they were not pointed in that direction?

This study's uniqueness is in its meta-examination of AR variables and an in-depth examination of the respondent's answers regarding the meaning of AR for them as teachers. This study also provides insights for teachers' teachers about the importance of incorporating AR into teacher training and a way of promoting teachers' professional development in the field, a way to enhance team collaboration and a tool that contributes not only to teachers in their classroom, but to the entire school.

**Keywords:** *Action research, SEL, professional development, self-efficacy, teacher training.*

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### 1. Introduction

The professional development of in-service teachers requires intense scrutiny of the unique characteristics of this group of teachers.

Integrating action research of in-service teachers as they manage their teaching is based on the perception that a teacher must participate in a knowledge-creating community and not just deal with knowledge 'transmission'. The research knowledge that is thus generated constitutes a stimulus for the teacher's professional development and, when the teacher is a partner in developing and changing the knowledge and integrating it during the process of research in teaching, advances her self-efficacy processes.

Action research is known as an especially promising strategy in the training/continued education of teachers with a research orientation as well as a means for introducing innovations into the teaching field. The latent potential of action research has been noted in many studies that dealt with educational policy (European Commission 2013; 2015).

Action research deals with valuable practical objectives, it is participatory, reactionary and developmental, linking theory and practice (Stern et al., 2014). In addition, it is important to emphasize that it is based on daily observation of the professional, reflective act and the giving of meaning to it. These teachers are more self-directed toward the unique needs of the student. They develop self-perception and self-efficacy.

Given that the objective in action research is to identify better action methods and to understand the mechanisms that facilitate improvement, each teacher-researcher involved in an action research will attempt to identify, implement, and understand the best possible way of acting. The purpose of action research is not to prove the error or failure of a certain practice but rather to enhance it (Artist Manual, 2019).

The educational initiatives and actions that teachers develop resolve dilemmas, problems and issues created within the classroom framework, the teacher's room, the school or through relations with the community. Educational initiatives may also emerge from the desire to develop or change an action direction or from the desire to enhance existing processes. The process of structuring the educational initiative and its assimilation and the research surrounding it reflect high order thinking processes during which the teacher identifies the need for the change and the essence of what should be changed. This is based on educated mapping of the needs of the school system, on mapping the existing and desired state of affairs, and on identifying an area for an educational initiative that will be linked to an area that is significant to the teacher himself (Hoekstra & Korthagen, 2011).

Researchers have generally focused on the field of science, but their remarks and conclusions are relevant to every teacher: action research of this type can contribute greatly to positive development of training methods and the work of science teachers, change teaching methods immediately and directly, and simultaneously enrich the foundation of science teachers' professional knowledge and thus enable them to develop professionally (Mamluk-Naaman, Eilks, Bodner & Hofstein, 2018). To continue and broaden the application of action research, long-term continuous oversight alongside development of and making accessible courses, study material and instructors are needed to motivate the teachers to act, innovate and examine the teaching methods they use in their classrooms.

Nevertheless, these processes must not be separated from the processes of fostering social-emotional learning (SEL). SEL is seen as an important element in and inseparable from educational and learning processes, because of, among other reasons, the accelerated technological developments and cultural and social changes characterizing the twenty-first century.

Instilling and acquiring SEL competences are intended to be reflected in an improvement in learning achievements, positive social functioning, an ability to adapt to complex situations, and a decrease in behavioral problems and emotional stress. Control of these skills is expressed over the course of time in behavior shaped by internal beliefs and values, alongside being able to see the other, as well as in taking responsibility for one's choices and behavior. In a broader context, a link between these skills and successful personal, social and vocational functioning has been found (Durlak, 2015; Jones, Greenberg, & Crowley, 2015).

SEL must be interwoven and assimilated in every area of education and be schoolwide. A caring environment, which is safe, supportive, concerned, nurturing and participatory, must be created for students. Students must be provided with opportunities to learn specific qualifications that will reinforce their social-emotional abilities and heighten their emotional happiness and welfare (Schonert-Reichl & Kitzl, 2016).

It is important to note that a central part of SEL is concern for the welfare of teachers and fostering of their social-emotional competences. The sense of burnout and the pressure that the majority of teachers report affect their relations in class and the achievements of their students in their studies. The fact that teaching is among the most draining of professions mandates an investment in the well-being of teachers and in developing their social-emotional competences (Patti et al., 2015). In regard to this aspect, we note, even though it was not examined in this research, though it is worthwhile examining it in the future, that SEL among teachers may also be a way to empower their research sensitivity.

## 2. Methodology

The research data were collected by analyzing 44 action research carried out by 44 teachers. The data focused on parameters guiding the action research such as problem definition, intervention plans, the issue being investigated, the research's intended audience, partners in the research etc. Likewise, the teachers provided their insights regarding the action research, and on the basis of these insights, statements were collected.

A qualitative research method with the addition of quantitative aspects was used. The qualitative findings were classified according to categories, and in conjunction with relating to the essence of the categories, quantitative reference to every category was made using theoretical statistics, to identify tendencies or trends among the study participants.

A unique element that was examined in this study is SEL expression in the action research. Did the teachers, when selecting the topics to be introduced in the teaching-learning change processes, have an awareness of their students' well-being? Was the awareness of SEL assimilated among teachers even if they had not taken continuing education courses on the subject?

### 3. Findings

Figure 1. Source of Dissatisfaction/Problem.

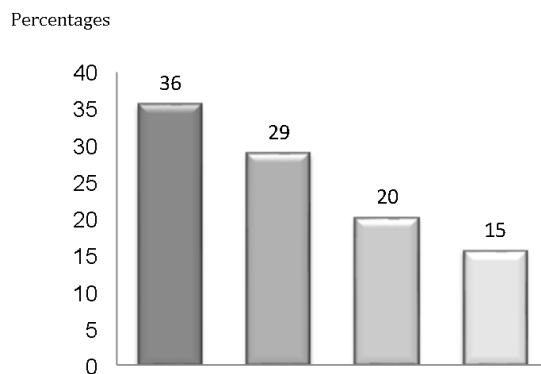


Figure 1 presents the sources of unease. Most of the dissatisfaction stems from deficient functioning of the group or of the individuals within it. In second place are problems related to students' learning processes. Problems deriving from social difficulties are in third place and only 15% of the action research studies were conducted because of teachers' dissatisfaction with their own teaching. It would seem that learning and functioning problems bother the teachers the most.

Figure 2. Sorting the Subjects into Categories (in percentages).

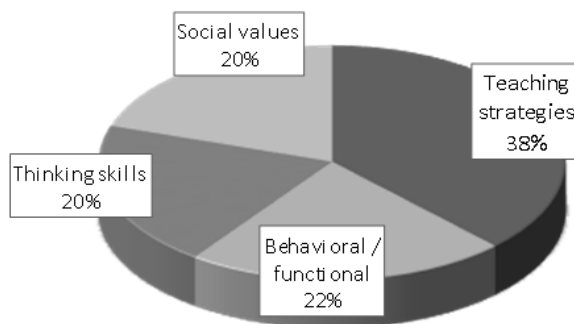
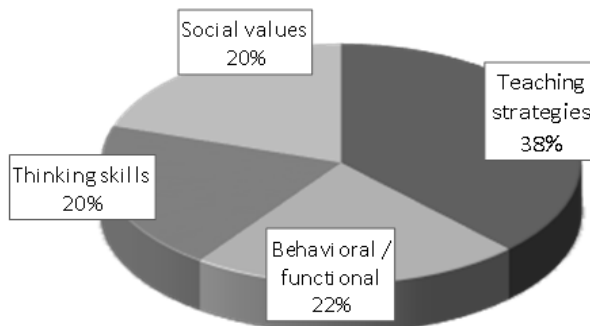


Figure 2 indicates the ways of dealing with the unease, as reflected in the research topics. When we are discussing research conducted by teacher-researchers, the majority choose a change in teaching strategy. The remaining research topics are divided almost equally into topics reflecting implementation of social values, behavioral changes and thinking skills. When we compare Figure 3 to Figure 2, we can see that the social unease is handled by assimilation of social values. From this comparison, it appears that functional problems are not dealt with only through behavioral methods but also through teaching strategies and thinking skills.

Figure 3. Action Research Work Environment (in percentages).



It is interesting to note that the research action environments are on different organizational levels, as seen in Figure 3. Most of the activities were carried out in the classroom (42%), but some were conducted on the age grade level (17%), the group level (13%), the individual level (8%), the teacher level (8%), the school level (8%), and even a little on the parent level (4%).

Figure 4. Research partners.

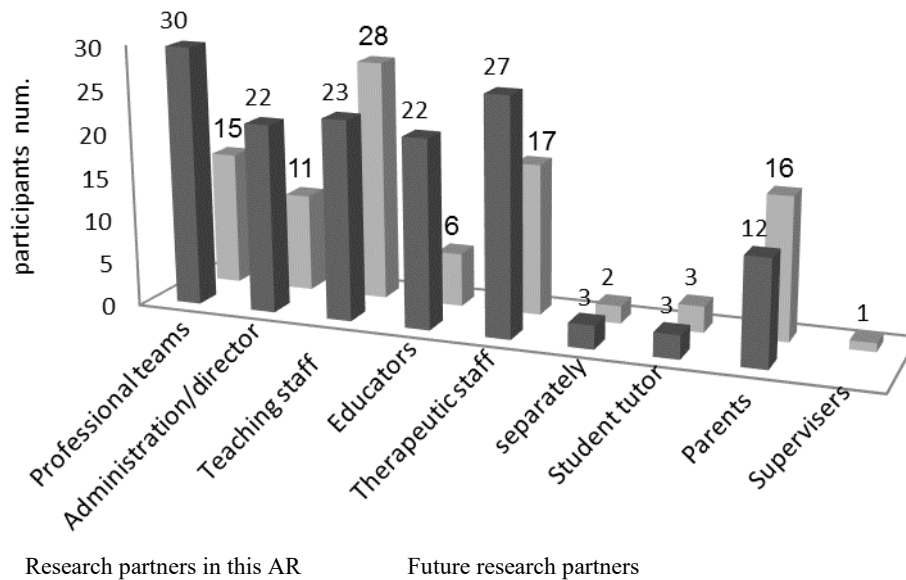


Figure 4 shows the choice of research partners in the present study and in the continuing study. It is important to emphasize that many of the teachers in the study proposed more than one research partner. According to Figure 4, in an examination of the research partners, we can see that there is a gap between the research partners selected by the teacher-researchers in the present study and those that the teachers will select for the continuation study. In the future, they will seek less help from professional teams, will need management and the treatment team less, especially homeroom teachers; they will, however, use their teacher colleagues and parents more. When comparing all the statements, it was found that in the present study, the teachers needed 142 partners, whereas in the future study, they will only require 99 partners. It may be that given that they have already learned about the subject and conducted an action research, they feel more secure now in their abilities.

Table 1. Distribution of the expression of main cognitive, emotional, behavioral abilities as defined by the Collaborative for Academic, Social and Emotional Learning (CASEL) in action research (N=44).

Social and emotional learning (SEL) ability	Ability characteristics	SEL expression in absolute numbers	SEL expression in percentage (rounded off)
Intrapersonal ability	Self-awareness & self-management	24	55
Interpersonal ability	Social awareness & interpersonal relation skills	14	32
Cognitive ability	Responsible decision making	6	100
Total		44	100

In table 1 we can see that all the action research in the school systems, there was an expression of social-emotional competences that were directed to developing teachers’ determination and increasing their well-being.

In terms of the reflection of the social-emotional abilities in the action research, we assumed that because the teacher-researchers who participated in this study had yet to take SEL continued education courses and learn about its fundamentals, and hence were not aware of the possible link between them and the action research, we would find that in some action research studies, the fundamentals would be reflected and in others, not.

In retrospect, our assumption was proven wrong. In all the action research studies, there was some expression of social-emotional basics. Possibly, this may be explained by the characteristics of action research: the fact of the unease and dissatisfaction with what is happening in the classroom and/or school creates the need for introducing a change, which leads to deepening of the teacher’s self-awareness and self-efficacy. In other words, action research promotes and summons thinking that reflects social-emotional abilities. Any change that is assimilated in a given situation as a result of unease in the field is an expression of it. Therefore, in every action research, there exists an expression of social-emotional thinking on one level or another of self-management, which also includes control, discipline and self-motivation that lead to goal setting and organizational abilities.

From these results, it seems that there was an expression of the teachers' intrapersonal ability to introduce changes for the benefit of the system, because of their personal awareness and self-management (55%). In contrast, there are problems that required interpersonal skills and social interaction with individuals and/or the group, when the teachers had to draw from their social awareness and interpersonal relation skills (32%). Part of the unease must be resolved using responsible decision making and use of the cognitive ability of high order thinking. Only 13% of the teacher-researchers chose to make the change. It is likely that the reason for this is the type of problems that they identified were more focused on the intrapersonal aspect and less on the interpersonal in terms of its cognitive part.

As mentioned above, the teachers who participated in the research had not taken continued education courses focusing on social-emotional ability topics. Nevertheless, it seems that when there is unease regarding processes in the school at different levels, the teachers try to solve it by integrating social-emotional learning.

Accordingly, we can see that need to give teachers the appropriate tools that will support them and assist them in deepening SEL processes for the benefit of students, themselves, the school and the entire system.

#### 4. Conclusions

Action research has a lot of advantages for teachers: It encourages critical observation and self-examination; This procedure helps teachers to foster self-belief and to recognize their own abilities and potential. This process derives them to develop their self efficacy; It promotes the forming of a future perception of the teachers based on intensifying the practical and theoretical knowledge.

Integrating AR in the educational system contributes to the teachers in their classes' to the team partnership and to the school system. It promotes the professional development of in-service teachers in the field. So our recommendations are:

It is important to use action research as a permanent component in teachers' training, as a tool for in-service teachers. It is also important to use action research as a permanent component in the professional development of in-service teachers in order to improve existing and desired processes. And it is important to use the action research as a tool for realizing the teaching vision with a face to the future

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