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# **Evaluation**

**of the “Participatory and Active Pedagogy” (PAP)**

run by the

National Bureau of Protestant Teaching of the Protestant Council of Rwanda

## **Abridged Version of the Report**

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## **Preface**

The National Bureau of Protestant Teaching (Bureau National d'Enseignement Protestant, BNEP) of the Protestant Council of Rwanda (Conceil Protestant du Rwanda, CPR) commissioned us with the scientific evaluation of their teacher training program in participatory and active pedagogy (Pédagogie active et participative, PAP).

During this evaluation the colleagues of the National Bureau of Protestant Teaching granted us deep insight into their work. We heartily thank them for commissioning us with this interesting survey and for the trustful cooperation. We are particularly obliged to François Rwambonera (director of the BNEP) and his team: Pasteur Pierre Claver Bisanze, Elie Hagenimana, Immaculée Mukantabana, Pasteur Samuel Mutabazi, Jean Baptiste Ndamukunda, Monique Nyirandikumana, Jean de Dieu Rukezamihigo, Athanase Rutayisire, and Zacharie Zika-ma.

We thank the general secretaries of the CPR, Rev. Richard Murigande and Dr. Tharcisse Gatwa for their commitment and benevolent advice on this project.

An evaluation is only as good as the participating schools. The schools are kept confidential in the survey. We express our thanks to the school administrations, the teaching staff and the participating students who took part in the survey with high personal commitment and involvement.

We would like to express our sincere thanks to Esther and Dr. Christian Grêt, who willingly allowed us an insight into their educational work and explained the PAP training program to us.

This evaluation has been intensively accompanied by a consultative council. Its members critically and constructively accompanied the problem and the methodological approach, as well as the data collection and the discussion of the results. We sincerely thank them! By name we thank: Dr Tharcisse Gatwa, general secretary of the CPR (chairperson), Mgr Augustin Mvunabandi, member of the commission for education of the CPR, Mgr Alphonse Rutaganda, director of the National Secretariat of Catholic Teaching (Secrétariat National de l'Enseignement Catholique, SNEC), Rev. Dr Elisée Musemakweli, president of the EPR (Eglise presbyterienne au Rwanda) and president of the commission for education of the CPR, Dr Erasme Rwanamiza, general director of education at the Ministry of Education (Ministère de l'Education, MINEDUC), Dr Faustin Habineza, professor at the Kigali Institute of Educa-

tion (KIE), Dr Joyce Musabe, director of education of the Seventh-Day Adventist Church, Mr. Narcisse Musabeyezu, general inspector of education at MINEDUC and Fortunée Kubwimana as his substitute.

The questionnaires were translated by Emmanuel Nkurunziza and Marie Claire Niyoyita. We thank them for their excellent and cooperative work.

Christine Kalt and Iris Bildhauer supported the data collection. Caroline Theisen, Tanja Wöhrlein and Petra Hiltl gave administrative support. Hotz Kommunikations- und Datenservice supported the data entry. We thank them for their help.

Brussels Airlines kindly supported this evaluation through their flexibility in transporting the questionnaires. We thank them!

We thank everybody from near and far who supported our exploration in March 2009 and the evaluation in 2010. The draft of this report has been discussed with the stakeholders and the consultative council. We thank for their fruitful remarks.

This brochure is the abridged version of the evaluation report.

Nuremberg, November 2010

Susanne Krogull and Annette Scheunpflug

## 0 Summary

Since 1998, the National Bureau of Protestant Teaching (BNEP) of the Protestant Council of Rwanda (CPR) has been running an in-service teacher training on participatory and active pedagogy (PAP) with the financial support of the German Church Development Service (EED). About 1,500 teachers of Protestant schools all across Rwanda have been trained in student-centered classroom-management since then. In 2010, an internationally renowned team, led by Prof. Dr. Annette Scheunpflug from the University of Erlangen-Nuremberg in Germany, conducted a scientific evaluation of the program, measuring its outcome on teacher- and student-level. The study was realized in a control-group design (comparing schools whose teachers have been trained with schools whose teachers have not been trained), using instruments of international school performance research and reaching 116 teachers and 976 students.

The scientific survey shows that this program has an impact on teacher- and student-level alike and that it makes a difference to school life whether or not the teachers have participated in the PAP-training. Students in PAP-schools (schools whose teachers have participated in the training) feel less afraid in class and understand better the structure of the lesson, which enables them to show a better participation in class. Teachers are less oriented towards egoistic competition in class and use more student-centered learning activities than teachers who have not been trained in PAP (non-PAP-teachers). The PAP-training also improves the teachers' professionalism and leads to a more positive interaction in class: PAP-teachers succeed in dealing with conflicts constructively better than teacher without PAP-training; students in PAP-schools experience less violence by teachers than students in non-PAP-schools. The program also changes the attitudes of teachers regarding for example their implicit theory of capability.

All this improves the students' learning environment and shows an impact on the motivational structures of the students: Students in PAP-schools have a higher self-esteem and a higher school-related expected self-efficacy than students from non-PAP-schools. Both aspects are not only important to improve the learning outcome but to support an autonomous personality as well.

Apart from its success, there is still potential for further development. Important didactical aspects, such as positive dealing with mistakes, strengthening the students' self-efficacy regarding social demands, or adopting different perspectives could be further developed.

# 1 What does Participatory and Active Pedagogy (PAP) signify? Objectives and background of the program

The central objectives of PAP are

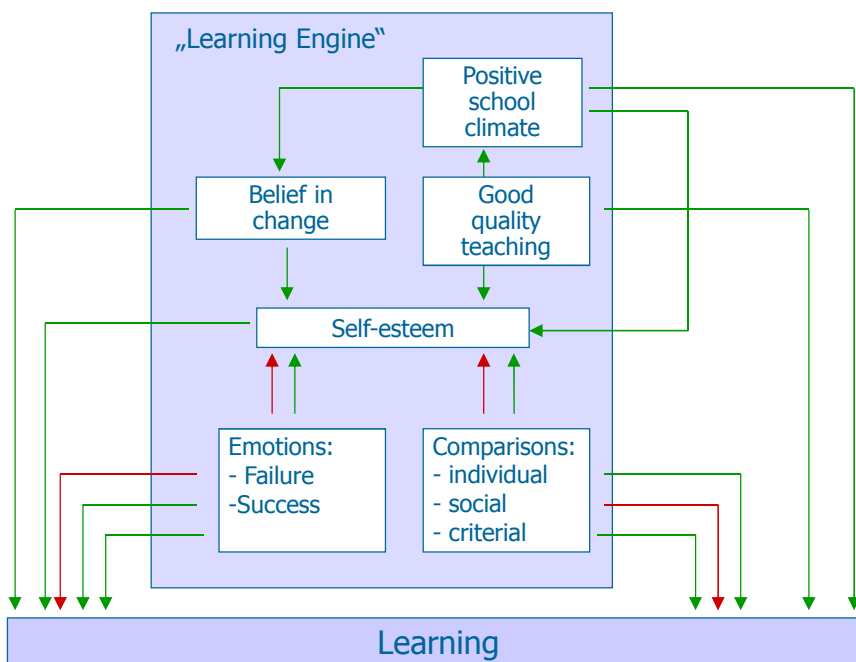
- (1) to increase the quality of the lessons by strengthening the self-esteem and the expected self-efficacy through a learner-activating lesson design and
- (2) to promote personal autonomy.

Both objectives aim at strengthening democratic and peace-promoting attitudes. This context will be explained as an introduction.

## Better learning and better students' performance through participation in class and student-centered didactics

Learning as the most basic objective of all educational efforts depends on the interaction of multiple factors (see fig. 1). A positive school and classroom climate and the trust in the potential change of one's own competencies are conditions for reaching the aim to strengthen especially the self-esteem. At the same time, a positive sense of self-esteem positively influences learning. Failure hinders learning, whereas success always stimulates learning.

Fig. 1 Learning and psychological processes



(cf. Zeinz & Scheunpflug 2010)

### **Development of self towards an autonomous personality – strengthening of the self concept**

A lesson design which observes these aspects potentially contributes to the aim of strengthening the students' self-concept and leading to autonomy. Social learning constitutes an indispensable necessity for teachers, but for students as well. In addition to the family, school passes on the necessary social competencies which are of great importance for a successful life concerning work, societal participation and private life style. Expectations concerning self-efficacy, independence, and the ability to cooperate as well as skills for self-regulation signify core attitudes and psychological patterns which need to be promoted (cf. Wang et al 1993; Delors 1996; Rychen & Salganik 2001). They outline the necessity of "interacting in heterogeneous groups" (Rychen & Salganik 2001/OECD) as well as "learning to live together" (Delors 1996). These attitudes are not only supported by the content of school subjects but in particular by the organization of school life itself (cf. Gillies 2007). In the way the social climate of a school is organized expectations towards societal demanded behavior are implicitly communicated and passed on. Therefore, those social competencies are essential and closely linked to the behavior of teachers. Quality of education is highly bound to the dimension of social interaction in school life.

### **Democratic competencies for peace**

Behind these efforts for learner-centered learning and a lesson design which promotes the autonomy of each individual student lays the assumption that high competencies, a strengthened self-esteem, an autonomous personality, and a high expected self-efficacy are fundamental principles for social cohesion and a peaceful democratic society. Thereby the program wants to react to Rwanda's tragic history.

In 1994, the Rwandese society was shaken by a terrible genocide, in which the lives of hundreds of thousands of people were taken and millions were left with physical and psychological injuries (cf. concerning its historic roots Mamdani 2001; Prunier 2008; its consequences Clark & Kaufman 2001; the role of the church Gatwa 1999; 2005). The social life of Rwanda has been lastingly disturbed. The first duty of educational action is to make its contribution so that such a tragedy can never happen again. This does not mean that education alone should deal with this question – it is certainly helpful to realize the limits of education. But it should be its foremost task to rise to this challenge (cf. concerning the tasks and problems of school education in societal fields of conflict Aedo-Richmond & Retamal

1998; Arnold et al 1998; Bush & Saltarelli 2000; Schell-Faucon 2002; Smith & Vaux 2003; Tawil & Harley 2004; Seitz 2004; Lenhardt 2009).

Different priorities can be established for educational action regarding peace educational intentions (cf. on conceptual questions for an overview Harries & Morrison 2003; Hausmann et al 2006; Schröder et al 2008; Bajaj 2008):

- (1) School education can contribute to socially reappraising such a tragedy and to realizing it with the help of a lively culture of remembrance.
- (2) School education can help to offer people the perspective that violence and exclusion are not attractive options.
- (3) School education can help to raise young people as mature subjects so that authoritarian structures and demagoguism lose their fascination.
- (4) School education can contribute to practicing democratic ways of solving conflicts.

With the program of the „Participatory and Active Pedagogy“ (PAP), a training for teachers is being offered which should enable them to use subject-oriented and learner-centered education in the classroom, i.e. an education based on the needs of the students. Thereby, not only effective learning but also peace educational measures should be implemented in the lessons and the school practice. This educational approach uses student activating methods to improve the participation of the students in class, therewith strengthening their self-esteem and self-confidence. In addition, peaceful ways of resolving problems should be trained (cf. on PAP in detail chapter 2).

### **The Protestant school profile: Responsible freedom**

Such an educational approach as mentioned above takes up central concerns of Protestantism in two different perspectives:

Protestant education should always be a subject-oriented education in accounted freedom. Subject-oriented education means „the meaningful demand from man to comply with his purpose as God’s creation in aspects and relations beyond social standardization and short-term instrumentalizations“ (EKD 2003, p. 14). From a reformation perspective the likeness and personhood of each individual person before God is being emphasized. As God’s representative on earth, he is thought to be capable of and trusted with an autonomous judgment concerning theological questions as well as questions to all other dimensions of life. God’s gracious and merciful devotion to men enables man to autonomy and responsibility. The commitment to God’s commandment gives him the „Freedom of a Christian“ (Martin Luther),



which releases him from many constraints and renders him open to turn to his neighbor and to assume responsibility for his fellow men and for society.

The educational offers have to meet this freedom and the demand likewise. Adolescents have to be pedagogically accompanied on their way to maturity, autonomy, and responsibility. The educational offers therefore have to strengthen the student's own activities and responsibility for theological reasons. „A protestant profile arises where young people are potentially enabled to experience the comfort and the demand of the gospel and where they can fathom out the meaning of the freedom of a Christian in their own lives.“ (EKD 2003, p. 14)

Secondly, the aim of all educational efforts results from this basic principle, namely to serve the well-being and the salvation of all people, or biblically speaking: the shalom. Where „mercy and truth are met together, righteousness and peace have kissed each other“ (Psalm 85.11) the prophetic vision of a renewed and changed world through God's shalom can be experienced already today. Martin Luther urged the schools to make a contribution to „peace, justice and life“. This needs to have an educational effect, as young people are guided by educational offers towards a behavior which promotes peace and justice.

## **2 PAP – The approach of the Participatory and Active Pedagogy**

In order to realize these ideals, a variety of pedagogical changes is required:

- The teaching methodology needs to be changed from an interrogatively developing teacher-class dialog towards participatory learning.
- The teacher-student communication needs to be changed towards an appreciative communication.
- Teachers need to intensively and cognitively penetrate the teaching matters in order to permit an individual grow in learning.

These aims have been worked on with the help of the PAP program. The PAP-program addresses teachers in schools run by the Protestant churches and their principals. It comprised several phases, in each of which different target groups were taken into focus (from 1998 to 2000 the first phase, which was evaluated, from 2002 to 2006 the second phase, and until 2010 a third phase, all of which were funded by the German Evangelical Development Service (Evangelischer Entwicklungsdienst, EED); a fourth phase until 2013 has just been approved by the EED).

Content wise it focuses on the demand to put the learning child more at the center of the learning process. Therewith the traditionally passive role of the student in class as well as the authoritarian basic structure in school should be overcome. The school should be developed regarding the learning success and as the basis for a democratic education.

The principals, as well as the teachers (sometimes the whole teaching staff) are being trained in a three-week course in PAP, i.e. how to give learner-centered lessons. The training is non-specific in its domain, i.e. it addresses teachers of all subjects. The course combines activating didactical methods (group work, partner work, interviews, role plays, etc.) with units on learning theory and psychology, which normally refer to a constructivist understanding of learning and teaching. In addition, communication theories as well as practical exercises on communication (e.g. the sending of I-messages) are integrated in the program. Following this two-week training, what has been learned is being practically applied in a local school and then jointly analyzed. The program of the course has been published and is therefore publicly accessible (Grêt 2009). After the training, the teachers are professionally accompanied by regional coordinators during the implementation. They are also invited to follow-up courses. The high fluctuation of teachers from faith-based schools to public schools (due to better salaries and social security) has led to a situation that schools which have already been trained consistently get new teachers. Those teachers are then

introduced to the method through training within the schools, the so called initiation. At the beginning, the program was accompanied by an expert on traumatic experiences and special offers for traumatized people were held in store. Furthermore, dealing with traumatic experiences was part of the content of the program.

Between 1998 and 2010 a total of 1,500 teachers were trained. When choosing the schools to be trained, a special emphasis was given to the participation of women.

### **3 Focus and methodology of the evaluation**

#### *A perspective on the outcome of the program*

The evaluation assesses the outcome of the program on teacher and student level. The aim is to identify if and to what extent not only the teachers who participated in the training, but also the main target group – the students – are beneficiaries of the program.

The study therefore evaluates on teacher level self-concepts (including concepts of learning), feelings towards profession and the role of the teacher in the classroom (as reported by the teacher), and on student level self-concepts, emotions, social relations (as reported by the students), and on classroom level the climate in class and the level of activities (as reported by the teachers and students).

Since the study couldn't be planned as a prae-post-design, a control group design was chosen. Results from schools whose teachers participated in the PAP-training are compared with results from control schools, i.e. schools whose teachers did not participate in the PAP-training, so called non-PAP-schools. Therefore it is necessary to accurately capture the students' and teachers' social background in order to determine the school's effects. The design included: the number of books, the subjective estimation of the family's prosperity in social comparison, the number of consumer goods, the number of people as well as the people themselves living in the household.

The effects of teacher training on the attitudes of students are considered to be rather small. One has to realize which influence school can have in this regard. In so-called industrialized countries, and there especially in the area of social learning, the effects of social learning are indicated to be small, as schools find themselves in competition with a variety of educational and socialization players who reduce the school's effects (cf. Scheerens & Bosker 1997; Baumert & Köller 1998). In addition, many of the attitudes, which were surveyed in this study, are deeply rooted in the personal history and personality of a person and thus can only be influenced very slowly and only step by step. Therefore, large effects should not be expected and even small results can make a significance difference.

The importance and weight of small changes in this area should be illustrated with the following example: In Germany, a model test was introduced to strengthen learner-centered learning. The teaching staff of the schools received a four-year in-service training. The results showed a 0.02 point increase in the implicit theory of capability on teacher level and on stu-

dent level an increase by 0.15 points (cf. Zeinz et al. 2010). Against this background, the change of 0.4 points due to the PAP-program, which is mentioned in chapter 4, should be considered highly meaningful.

### *Methodological approach*

The following methodological approach was chosen:

- Paper & pencil questionnaires for students, teachers and principals
- Observations of English or mathematics lessons.

The methodological approach was developed with the BNEP team during a workshop in 2009 and later discussed with the consultative council in 2010. The instrumentation of the study was taken from international instruments (see the main report and the technical report of the study). The questionnaires were first translated into Kinyarwanda by a native speaker. Then the translation was discussed with a group of experts (BNEP team). After this the first translation, as well as the revised translation, were re-translated by a native speaker not involved in the discussion. Problems which then occurred were again discussed with the group of experts and then translated by a native speaker. The translation was tested in a pre-test and then again modified.

In addition to the quantitative data collection, selected English and mathematics lessons were observed in primary and secondary schools and recorded in writing by two observers. After the lesson, the observers separately rated the lessons on the basis of their impressions and records and according to the following criteria:

- (1) Subject-oriented didactical structure of the lesson structure)
- (2) Communication between the teachers and students
- (3) Participation opportunities
- (4) Microelements of democratic education

(1= not recognizable; 5= very clear)

The separate ratings of the two observers were compared; in case the rating of an item showed a difference of more than one point, the item was excluded. The consistency of the two raters was remarkably high.

### *Sample*

The data collection of the main survey was carried out in ten Protestant schools:

- Five of these schools were schools where the teachers had been trained or initiated in PAP and where – according to the BNEP-team – there was the best dynamic in PAP, so called PAP-schools.
- Five schools were control schools (so called non-PAP-schools) whose teaching staff had not participated in the PAP-training.

At each school, all teachers, (all or some) students of the 5<sup>th</sup> and 6<sup>th</sup> grade and the principal (in one case also the assistant principal) answered their respective questionnaires. Thereby data from 116 teachers, 976 students and 11 principals was collected. The sample of the observations included ten classes in ten primary schools (eight classes in 6<sup>th</sup> grade and two classes in 5<sup>th</sup> grade), six PAP-classes and four non-PAP-classes, as well as four classes in four secondary schools (two classes in 3<sup>rd</sup> grade, one class in 5<sup>th</sup> grade, one class in 6<sup>th</sup> grade), two PAP-schools and two non-PAP-schools.

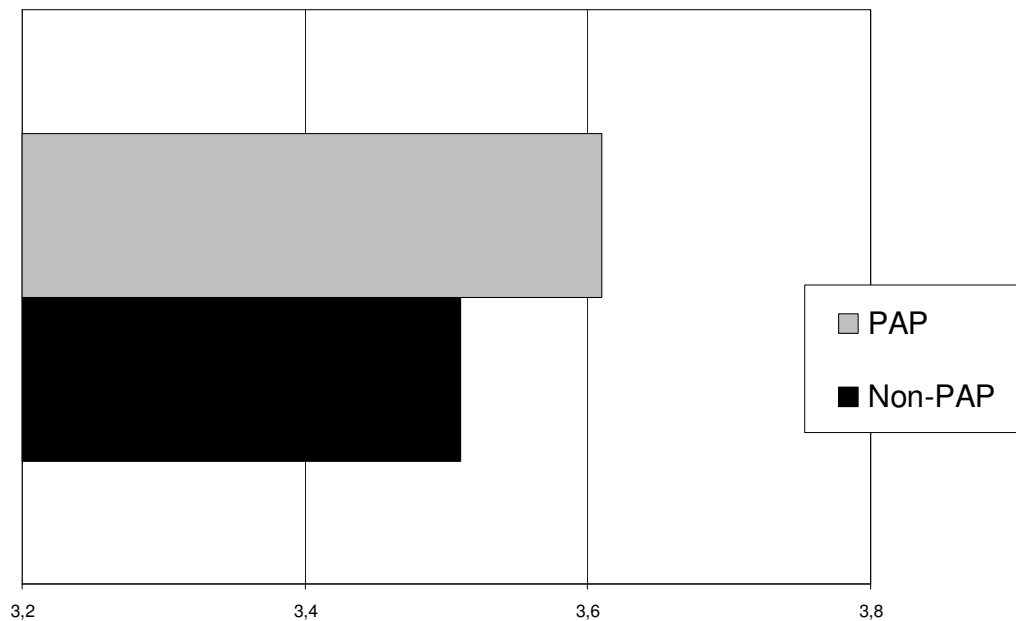
## 4 Results

### 4.1 PAP makes a difference

As a first result of the study we are able to show that the PAP-training program is successful in regard to its aims: Comparing control schools with those schools which have received the PAP-training, differences on student- and teacher-level can be assessed, which cannot be attributed to other factors (e.g. the social background). A few examples should illustrate this:

In order for students *to learn autonomously* it is of importance that they understand the structure of the lesson and therewith are able to follow the lesson autonomously. Fig. 2 shows the students' perception of the structure of the lesson (example item „During the lesson the most important is often summarized“, 1= never; 4 = always).

Fig. 2: Structured lessons, student perception

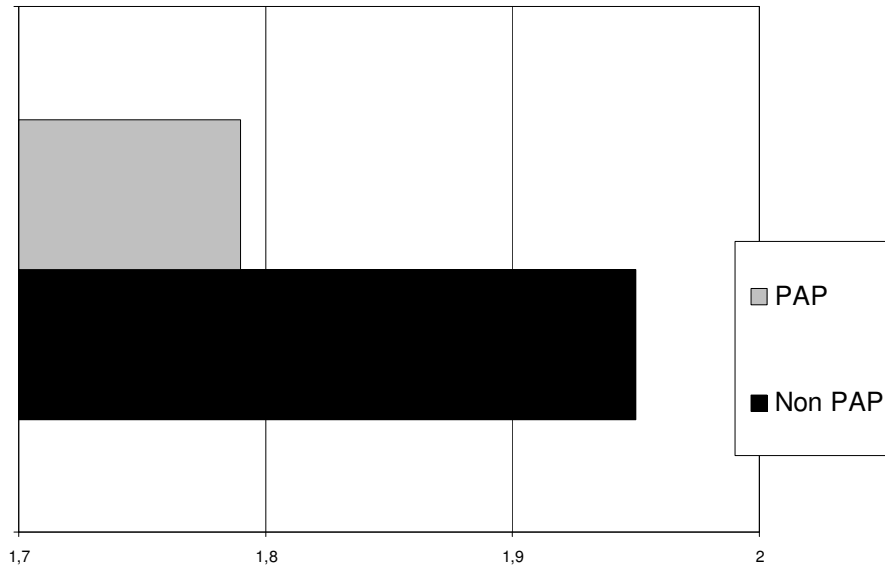


It becomes visible that PAP-students perceive their lessons as being more structured than students from non-PAP-schools. The difference is significant.

For the development of value-based attitudes in the sense of an *autonomous personality* and a mature subject, it is necessary in the school context to be able to speak one's mind and to

feel little fear. Fig. 3 shows the students' fear in class (example item „I'm afraid to raise my hand during class“, 1= never; 4 = always).

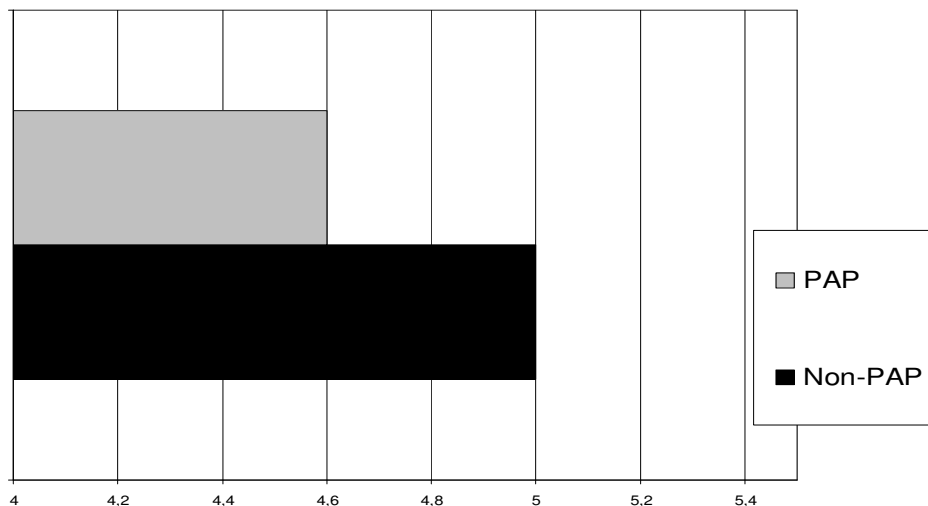
Fig. 3: Fear in class, student perception



It becomes visible that PAP-students feel less afraid in class than non-PAP-students. The difference is significant.

For a democratic climate in class it is important that a high performance is stimulated not at the expense of other students but in social cooperation. Fig.4 shows the difference regarding the stimulation of egoistic competition among students from the teachers' perception (example item „In my lessons I attach great importance to motivate students by competition“, 1= disagree a lot; 4 = I agree a lot).

Fig.4 Orientation towards egoistic competition in class, teacher perception





Obviously, PAP-teachers work less intensively with egoistic competition in class than non-PAP-teachers. The difference is highly significant.

In all measured dimensions, PAP shows effects in a positive direction. Not all the differences are significant, e.g. the democratic climate in class and positive coping with conflicts (teachers), self-regulation and adopting different perspectives (students).

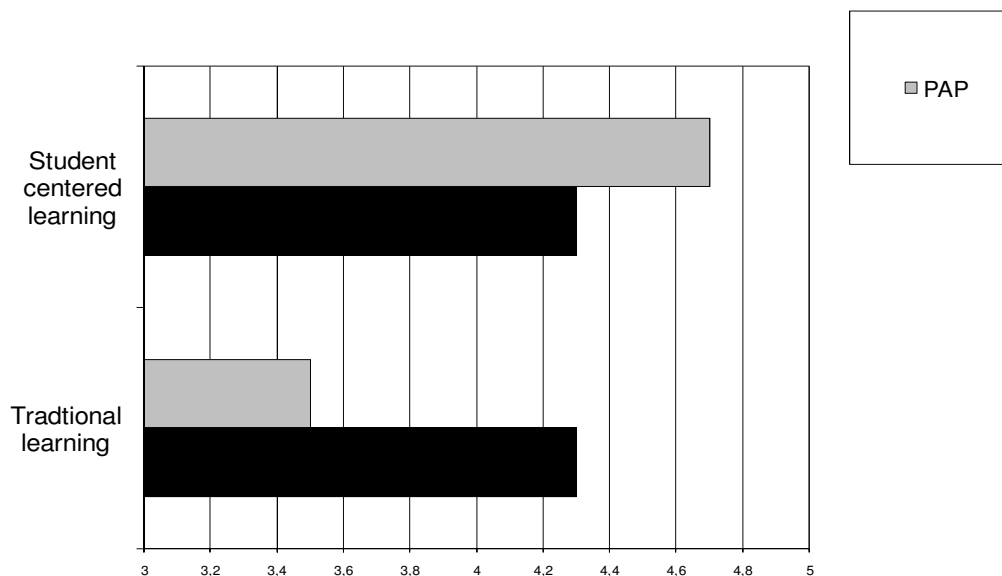
## 4.2 PAP has its specific strengths

The study can state the specific strengths of the PAP-program.

### *Implementing student-centered forms of learning*

PAP has its strength in *implementing new forms of learning*. The study shows that this aspect of a participatory pedagogy has been well accomplished, namely a change in class from a confronting teacher-student interaction towards a participatory approach where students work with partners or in groups. Fig. 5 shows how often traditional forms of learning are applied (e.g. choral repetition) in comparison to »new« forms of student-centered learning (e.g. partner and group work) (3 = in 2 of 10 lessons; 4 = in 3 to 4 of 10 lessons; 5 = in 5 to 8 of 10 lessons).

Fig.5 Frequency of student-centered learning and traditional learning, student perception



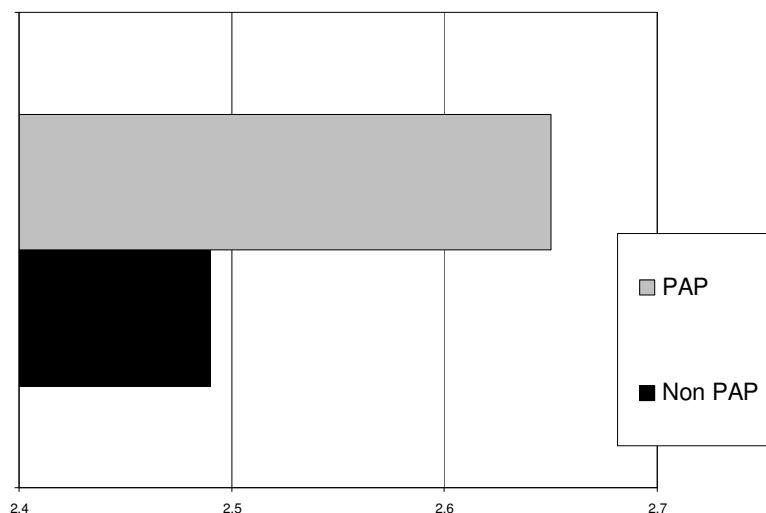
PAP-students more often than non-PAP-students have the impression that they work using student-centered learning methods. The difference becomes slightly significant. PAP does not have a monopoly on this new type of lessons. Participatory pedagogy is also being taught in other trainings, e.g. in teacher training run by the state. But PAP obviously succeeds better than other types of training to not only add a new didactical methodology but to minimize the traditional forms of learning as well (like choral repetition). This difference is highly significant.

### *Positive interaction in class*

PAP has its strength in combining the implementation of new forms of learning with a positive *interaction in class*.

This can be seen for example in the students' perception regarding forms of positive coping with conflicts. The question of how to deal with conflicts is of importance when it comes to promoting personal autonomy– whether there exist constructive and communicative strategies to deal with the conflicts, or whether they are silenced and then expressed through social segregation or even violence. This aspect of the climate in class has been surveyed with different batteries of questions. Fig. 6 shows the difference in dealing constructively with conflicts regarding the communicative situation (example item „If there are different opinions in class concerning an important question, we better not speak about it.” (recoded); 1= disagree a lot; 4 = I agree a lot).

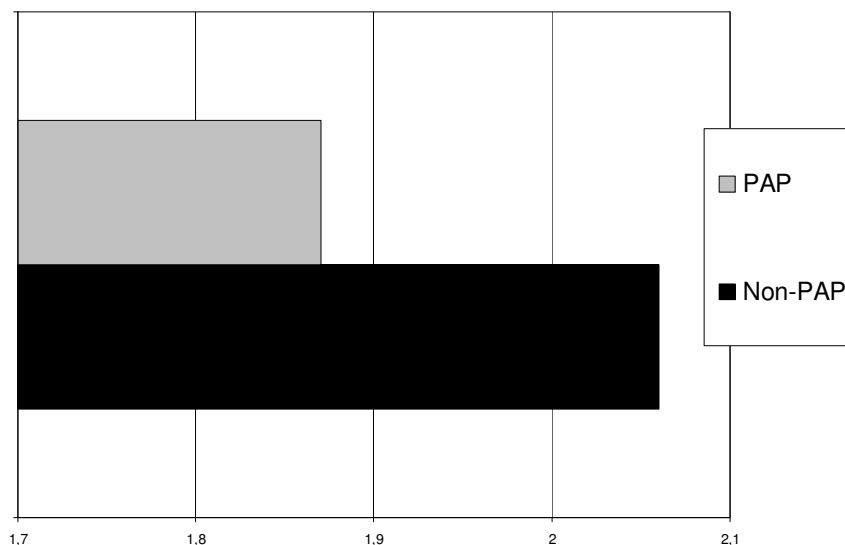
Fig. 6: Positive coping with conflicts, student perception



PAP-teachers succeed in dealing constructively with conflicts in class better than teachers who have not had the chance to participate in the PAP-training. The difference becomes highly significant.

Similar results can be shown regarding the students' perception of violence against students. Fig. 7 shows violence by teachers against students in the students' perception (example item „A teacher hit you“; 1= never 4 = always).

Fig 7: Violence by teachers, student perception

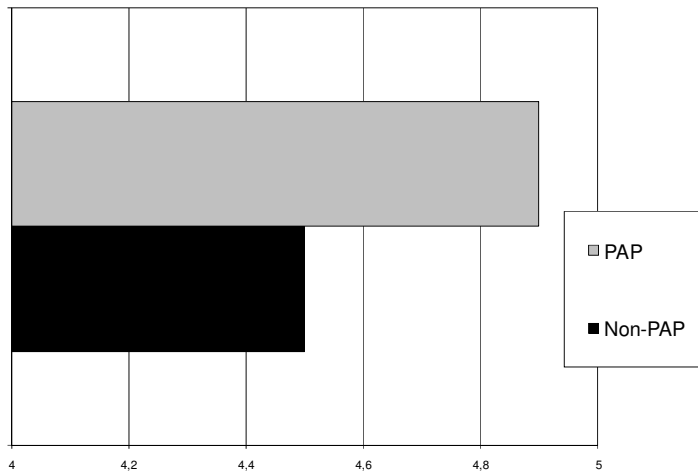


Students in schools without PAP-training apparently observe more violence by teachers than students in PAP-schools. The difference becomes highly significant.

### *Attitudes of teachers*

PAP has its strength in changing the professional attitudes of teachers in regard to their subjective theories about teaching. The evaluation measured the teachers' implicit theory of capability regarding the students' changeability of their performance. It means the estimation of the teacher whether his/her students are capable to improve their own abilities. This estimation of the teacher is a predictor regarding his/her involvement in individually supporting the students. Fig. 8 shows the result (example item: „My students cannot really change anything about how talented they are.“ (recoded); 1 = I disagree, 4 = I agree a lot).

Fig. 8: Implicit theory of capability, teacher perception

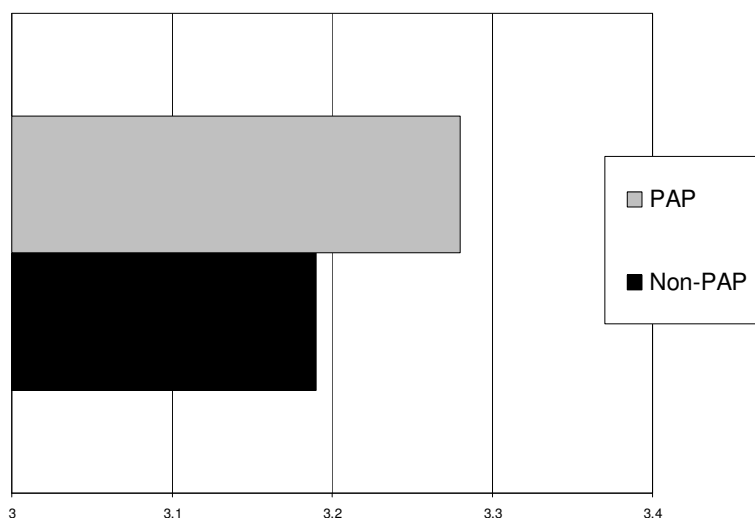


As expected, the PAP-training has a positive influence on the participating teachers' implicit theory of capability. They have a stronger belief that the students can change their performance capability than teachers without PAP-training. The difference becomes slightly significant.

#### *Impact on personality*

These better learning opportunities and the more positive interaction show an impact on the motivational structures such as the self-esteem. Fig. 9 shows the difference in self-esteem as perceived by the students (example item „I consider myself a precious person, at least I'm not less precious than other people“, 1 = never; 4 = always).

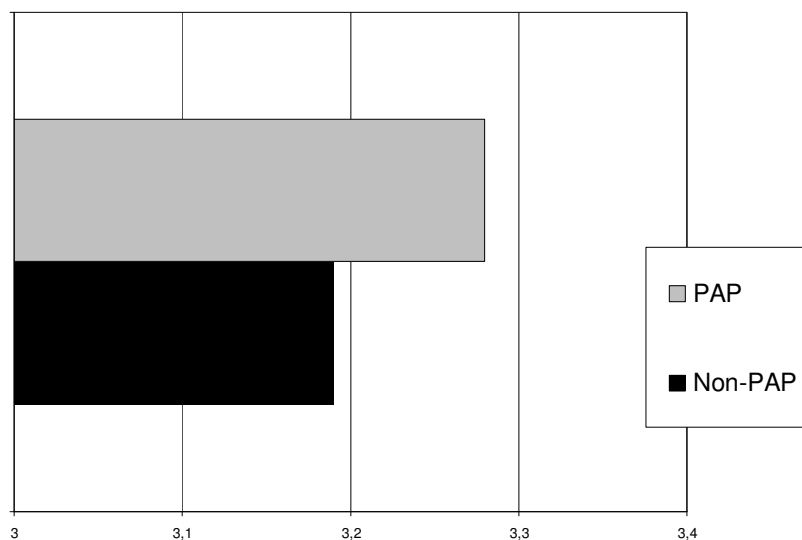
Fig. 9: Self-esteem of students, student perception



The average self-esteem is higher in PAP-schools than in non-PAP-schools (eventual social differences as well as differences regarding the gender makeup of the student body are controlled). The difference is slightly significant. Even though the difference seems to be little, it is bigger than the one between boys and girls in Rwanda – a difference which is generally self-evident.

Similar differences are found regarding the school-related expected self-efficacy of the students. The expected self-efficacy is an important characteristic of both autonomy and the school-related motivation. Fig. 10 shows the difference between the PAP and non-PAP (example item „I can solve even difficult exercises in class if I make an effort“; 1 = I never agree; 4 = I always agree).

Fig. 10: School-related expected self-efficacy, student perception



The difference becomes significant.

Obviously, the PAP-program has its strength in implementing new participatory forms of learning, while at the same time reducing the memorizing forms of learning which are little discursive. Students in PAP-schools observe less violence by teachers than their peers in non-PAP-schools. In addition, there is a stronger perception of constructively dealing with conflicts. Teacher who have participated in the PAP-training have a more positive implicit theory of capability about their students. Respectively, a higher self-esteem as well as a more positive expected self-efficacy can be stated among PAP-students.

### 4.3 PAP has potential for further development

Besides the strengths of the program, the study also revealed potential for its further development.

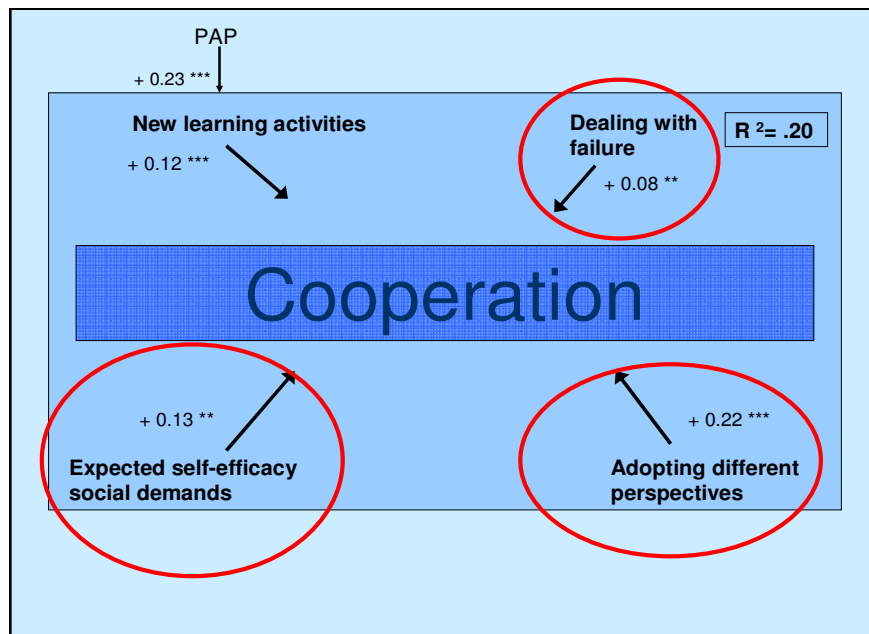
#### *Strengthening of important didactical aspects*

Analyzing the empirical data, it became recognizable that there are certain didactical principles which so far have not been used sufficiently for the benefit of reaching the program's objectives. The three didactical perspectives – which are important for the goal achievement of PAP – have not yet developed its effects:

- Positive dealing with failure: It is central to student-oriented didactics that students have the opportunity to experience mistakes as an anxiety-free source of knowledge. Therefore teachers need to allocate a didactical (and therewith: no disciplinary) function to mistakes and allow learning by mistakes. In addition it needs to be possible for students to learn systematically from their experience of failure (e.g. bad working results) and not to experience them as a disciplinary measure.
- Self efficacy regarding social demands: Students show greater cooperation when they experience themselves as socially self-effective in class (and not only regarding their cognitive competencies), for example when they help others in class or rather when their group-beneficial social behavior is being reinforced systematically.
- Adopting different perspectives: The competence to see things from somebody else's perspective and to reflect upon an issue from different perspectives is a key requirement for peace and social cohesion with simultaneous personal autonomy.

To illustrate the influence of these different abilities, the influence was measured on cooperation for all students. As a second step, the influence of PAP on these competencies was also measured. Fig. 11 shows the results.

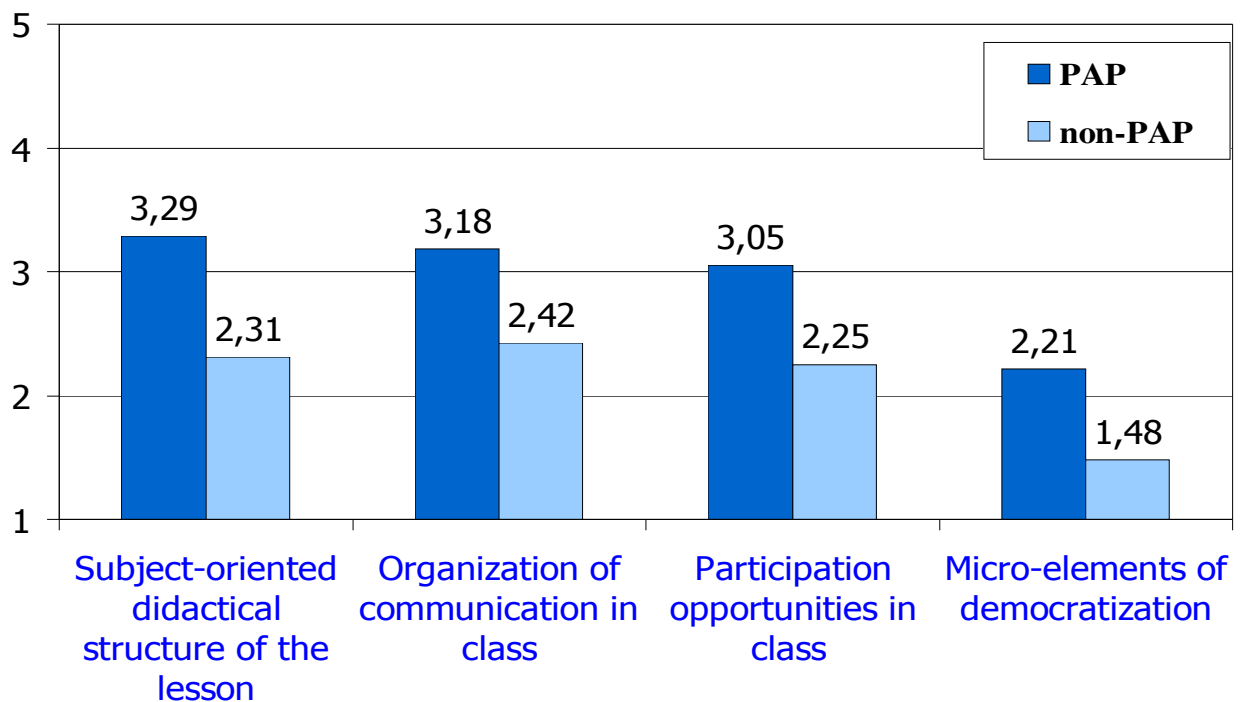
Fig. 11: Influence on cooperation in class



The introduction of new forms of learning has not only the highest influence on cooperation, but is also being influenced by PAP in a highly significant way. The other factors which influence cooperation in the Rwandese context have not yet been reached by PAP. This empirical finding correlates with our analysis of the training program in which these competencies play a relatively small role only. They often find their expression only in the participants' interaction and therefore it is more difficult to influence them than the organizational form of communication in the classroom. We call these aspects „micro-elements of democratization“ in class.

The weakness in this area also manifests itself in the observation of the lessons. Fig. 12 shows the performance of teachers by observation in class (four areas of observation, each of which has been differentiated in at least three items, structure of the lesson, communication in class, participation, elements of micro-democratization; 1 = PAP-approach not observable, 5 = PAP-approach continuously observable).

Fig. 12: Performance of teachers by observation in class



In all dimensions of the observation, PAP-teachers did better than non-PAP-teachers. But the dimension of micro-elements of democratization, like for example constructively dealing with mistakes or encouraging the adoption of different perspectives, so far is the least revealed. The possibility for participation and the learner-centered communication observed in class need to be stressed, even though a potential for further development can be identified in these dimensions as well. This would be of special importance in regard to the content of the different subjects.



## 5 Summary of the results

As a synopsis of the empirical findings, the following results can be summarized:

*(1) The PAP-training program shows effects regarding teachers' attitudes which become effective on student-level as well.*

The study was able to demonstrate that the PAP-training shows effects not only on teacher-level, but on student-level as well. On teacher-level, effects were especially visible in a lower orientation towards ineffective learning activities such as chorally speaking, in an increased positive attitude towards learner-centered learning activities, as well as in an increased social orientation. On student-level, an increase in democracy-related forms of resolving conflicts, less fear in class, as well as fewer experiences with violence by teachers became noticeable. Thus, the PAP-program answers the expectations applied to it.

*(2) The effects of the PAP-training are observable in class*

The study was able to show that the effects of the PAP-training could also be observed in class. As expected, the evidence is heterogeneous: In some classes the implementation is more successful than in others.

*(3) PAP influences the teachers' professionalism*

The PAP-program leads to a higher professional communication within the school and therewith contributes to an increase in the teachers' professional competence beyond the close effects of the program. Communication between teachers about their work practice is an important predictor for the interpretation of school as a learning organization and the dynamization of pedagogical reflection.

*(4) Trainings do not have linear effects but are found in a complex context*

The study has also shown that a direct influence of the program on the teachers' and students' self-esteem cannot be assumed. Its constituency is too complex to be traced back to experiences within the profession or the school alone; it is rather economically and socially conveyed. It became visible that the family background matters a lot regarding this aspect, e.g. the economic prosperity. The strain of the genocide, which could not be measured, should be a mayor issue as well.

*(5) There is great potential for reaching the program's objectives even more effectively*

The results of the classroom observations regarding the structure of the lessons suggest that integrating the contents of the PAP-training into didactic-theoretical aspects might advance the professionalism of the program. The introduction and reflection of didactic micro-elements, such as dealing with errors or adopting different perspectives, would be useful for the further success and the future development of the program.

## 6 Recommendations

Given the background of these results we would like to propose the following aspects to further develop the PAP-program:

- To strengthen those aspects of the program which did not show a significant effect.
- To include further aspects of micro-democratic teaching.
- To link the program to a protestant school profile.

### *(1) Reinforcement of the approach: PAP is of great importance*

The results of this evaluation demonstrate empirically that PAP has an influence on the participating schools. The program makes a contribution to peace education. At the same time it has to be realized that the effects (especially on student-level), even though they are visible, result in very small differences. The results can be seen in accordance with results from school research (e.g. Abs et al 2009), which leads to expect rather long-term and smallish effects from peace educational measures. Therefore the program should be pursued and further developed.

### *(2) Conceptual continuation of the program with regard to subject-specific and specialized didactic subjects*

Considering the identifiable difficulties of the subject-specific transfer, we recommend to extend the program to subject-specific approaches, for instance in the main subjects mathematics, first language and foreign language. Thereby, the methods could be refined, linked with the subject-relevant contents, and therewith the learner-centeredness of the program could be strengthened.

### *(3) Conceptual continuation of the program with regards to the pedagogical foundation of the program*

The findings lead one to suppose that the program could benefit from an explicit embedding in didactical theory. The contents of the training could be more decisively related to topics of classroom-management, e.g. features of a good lesson.

### *(4) A distinct Protestant identity*

The search for justice and the promotion of individual responsibility are key characteristics of Protestant identity. So far they are not recognizable in the PAP-training program. Even if some schools have developed a content-wise Protestant identity, this is not linked to the PAP-program. There is a distinct potential for the development of the program in this regard and to strengthen the identity of teachers.

## 7 References

(see the long version of the report for further references, especially on the instruments)

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Additionally, we used documents of the BNEP, given to us on a CD-Rom.