Can teachers influence the self-image of their students?
Effects of an intervention on students: video-coaching with classroom-events in
Teacher Education.

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Keywords: teacher education, partnership, self-image, self-esteem, initiatives, teachers, zone of the proximal development, classroom, basic communication, video coaching.

Abstract

Research question and relevance
Modern tailor-made education programmes and learning models with more autonomy for children, ask different competences from children and teachers than more traditional teacher centred programmes. Co-operation between the Teacher Education and the local work environment enables lecturers to discover in practice-oriented research the effective way of developing competences of students. It is obvious that some children take many constructive initiatives and others do not. However, the problem with initiatives also has intrapersonal aspects. Children with a low self-image possibly take less constructive initiatives. Rosenberg (1965) found that young people with low self-esteem had more problems in social situations. If words act upon children to shape thinking (Vygotsky in Wertsch 1985) it might also form their self-image in influencing their behaviour. In this case it is very important for teachers to use the right words and adopt the right professional pedagogic attitude. When the children individually feel accepted by their teacher they require less energy for emotions en they can use energy for reflection. Maslov (1970) calls this self-realization after fulfilling basic social needs and ego-needs. Reflection is necessary to become conscious of new meanings in order to be able to connect new ideas with already existing inner means and develop new meanings.

The question is: Can teachers change inactivity, or non-constructive activities into constructive initiatives? Is it possible that they can turn a negative self-image into a positive self-image by an intervention with positive basic communication towards children, a professional pedagogic attitude and scaffolding to support activities in the child’s zone of the proximal development?

Method
The research’s aim is to discover intervention effects by students in the self-esteem and activity of children.
This research is an integration of practice-oriented and scientific. Ten students and their classroom children (N=204) were involved in this investigation. Pre-test/post-test design with an intervention has been used with the students and also in the classroom.
Students: Assessment, Video-analyses, Reflection.
Classroom children: Rosenberg Self-esteem, observation in the classroom, projection materials: tree drawings, video-analyses.
Intervention: three times video-analyses with basic communication, professional pedagogic attitude and the influence of the zone of the proximal development.
Results, conclusion and discussion

The results of the research showed that teachers who used a professional pedagogic attitude and acted from an adult position can activate children. Children of these teachers showed more reactions. Crucially, after the intervention children showed a higher self-esteem. One of the changes in the self-image was the way that children thought others would judge them. In this case, school has a powerful job to do. Working with a positive self-concept, children produce more constructive initiatives. In this way there is integration between the contents of education and the support from the teachers in personality growth. Teacher Education has to change its curriculum and learn from the local working environments in order to bring the individual practise of their students into the university, and to develop the competences of students.

Can teachers influence the self-image of their students?

Why does every child not profit from modern tailor-made education? Some of the children show many constructive initiatives and are eager to learn new things. Others become passive or do not take this positive initiatives, or develop behaviour problems which hinder them from developing in the right way. The question is what causes the lack of children’s constructive initiative? If there is a relation between this non-constructive initiative and dynamic self-esteem, it becomes possible to support children in a change of attitude. Accepting self-esteem as a dynamic system, the question is how can we improve the teachers’ competences to influence this self-esteem? Can they be given tools in order to deal with the cultural and personal differences of children, and support their development in the right way? Interpersonal communication, a professional pedagogic attitude and influence on the zone of the proximal development can possibly change the self-esteem of children. The subject of this study is how to change teachers’ attitudes in order to support children in their development of self-esteem by scaffolding the sense-giving process.

It is obvious the education system in Dutch schools had to change. Too many children could not fit into a classical system and became ‘drop – outs’. These children did not get the right starting qualifications to participate in society as citizens and employees on their real level. In fact there are many differences between children in a multi-cultural society. Also the process of inclusive education has been improved. Not all the children could follow the same lessons.

Nowadays all Dutch teachers are working more or less with an adaptive way of education. They use differentiation working methods, children work partly on their own level and learn to work independently and cooperatively. But still there is a number of children who cannot profit in this new system of education and become outsiders. This outcast group causes problems in society. Youth criminality is increasing by more then ten percent each year (Blom, e.a. 2005). In the little research to date about the effects of the new learning methods it was found that probably teachers did not have the right competences to deal with the differences between children (Blok et all 2006).

An actual decision has been made by the government which asks for a new orientation between schools and their environment. Schools are seen as low threshold institutes in
the middle of the society. The new law of citizenship developed as a result of the European Union conventions and began in February 2006. It forces schools to participate in finding solutions for integration of different cultures in Dutch society. Program suggestions for schools are especially of an interpersonal nature. However, the nature of problems of children taking less constructive initiatives probably is more intrapersonally directed, or at least shows a combination of inter and intra personal aspects. Behaviour, the initiatives a person takes, is the projection of the way persons thinks about themselves. It is a consequence of the idea a person can influence his own environment himself. Thus the role of the self-esteem is probably important.

The research in this study stems from initial work completed during the writing of a dissertation about of the intrapersonal aspects of what is involved in the sense-giving process: *the relation between self-esteem and the way people take initiatives.* In a literature study some new ideas were born and worked out in a dynamic sense-giving process. Psychologists used to say that the self-esteem is static. They claimed that one can only influence behaviour, not self-esteem itself (v.d Ploeg 1990, Rosenberg 1986). Erikson (1968) shows the contrary. He maintains that there is a possible influence on self-esteem caused by going through and solving life-crisis. In these crises, interpersonal support influences self-esteem. When self-esteem is dynamic in the larger-scale life-crisis, why wouldn’t it become dynamic by solving smaller crises during the developmental and learning processes?

Wertsch (1985) learned that words act upon people. Words influence the sense-giving process, but also the feelings coming along with the words are involved in this procedure. Experiences, circumstances and personality as well as self-esteem are ingredients of the sense-giving process. Also, the way others react on initiatives is possibly important. They colour this process in a positive or negative way. Adaptation of new sense gives emotions. The person can adapt the new sense in a better way if the support of this emotion by teachers is positive. Children become conscious about new senses and can reflect better when the emotions are reduced. Their energy is not necessary any more for the emotions, but can be used for the adaptation process. New senses change self-esteem and the locus of control, the idea a person can influence himself in his circumstances. The behaviour and the initiatives a person take can become more positive, if the self-esteem becomes more positive. If children had more negative influences from the environment or by experiences, they have to adjust themselves more by showing resistance in emotions. These children have more problems in the sense-giving process, because their reactions are emotional and they cannot reflect enough to give meaning, to make sense of new information. Their behaviour will be less constructive. If teachers positively support and scaffold the initiatives of children, the process of sense-giving probably can turn positive. They can do this by a professional, pedagogic attitude.
The purpose of this study is to discover if it is possible to change the professional pedagogic competences of student-teachers by a short intervention by lecturers in teacher-education with video-materials of their own classroom. Also it shows a first exploration of the possibilities to influence the self-esteem of children in the classroom through these improved professional pedagogic competences of their teachers. Finally this research will try to discover if these changes have a positive effect on the initiatives of children in the classroom.

**Materials**

The materials that have been used in this research are as follows:

1. Intervention with video shots of students classroom practice

This intervention has been tried out in a pilot. Reflections and video-analyses showed that this intervention is useful and probably effective for the students.

The intervention had different parts:

a. Start assessment by independent assessors in pedagogic and didactic competences. In a portfolio shows the student the former attained competences. He reflects on a ten minute video tape or DVD made in his own classroom showing the entrance of the children, group- and individual conversation and a talk with a colleague. The purpose of this assessment is to know on what level the aspects of basic communication, professional pedagogic attitude and the influence of the zone of the proximal development are present. The assessors participated in an assessment training. In this training and under supervision they learned how to execute a reliable assessment.

The differences between the two independent judgements of the assessors were measured. There was not a significant difference. So the results of this judgement can be seen as reliable.

b. Research in the classroom.

*Rosenberg*
Research by the student on self-esteem, initiatives and behaviour problems. The Rosenberg self-esteem scale is used in this study. This four point scale is widely used in order to find out some details about self-esteem. It is used for 16 years and older. In this research with younger children is the reliability with Crohnbach’s Alpha = 0.76. Actually it is not enough to use this in scientific research (Alpha 0.80 is reliable), but this is close to the necessary reliability, so I decided to use these results.

**Observations**

Another part of the research is the observations of externalised and internalised behaviour problems of the classroom children observated by means of five items. It is based on the ABC observation (Antecedent, Behaviour, Consequence):

1. Is the behaviour externalised or internalised?
2. What does the behaviour look like?
3. What is the cause of this behaviour?
4. What is your reaction to this behaviour and what is the reaction of the child to your reaction?
5. Does the child take initiatives during the lessons? How?

Students have been challenged to develop more criteria.

**CITO nursery class observation**

For younger children the information about self-esteem comes from the CITO nursery class observation form. It is used in many Dutch schools and has a reliability of Alpha first part 0,80 last part 0,82.

**Tree drawings/child drawings**

The first groups of children draw trees. In these drawings you can find the projections of what is in the child’s mind. In a inter-judgement measurement for the tree-drawings, nine persons judged the same twelve drawings. Only just a similarity was found in this inter-judgement of the normal tree drawing with the Friedman: sign. 0,063. In the fantasy tree drawing similarity increased sign. 0,224. The reliability wasn’t enough for using these results for conclusions: Crohnbach’s Alpha 0,66 with the normal tree drawings. The reliability for the fantasy tree drawing was Crohnbach’s Alpha 0,72. So, only in the first 5 groups child-drawings were involved. I could not use these results in former research.

c. Intervention: video-guidance.

The lecturer coaches the students using three videos made by the students in their classroom. The assessment results and the observations of the children are the starting-point of the coaching and the student reflects on the criteria which show he has something to learn. The attitude of the lecturer is always positive, looking at successful situations in the video-shots. It is an activating attitude, asking the student to reflect on his own shots, and supports these initiatives in a positive way. In this manner the self-esteem of the student will grow and he can reflect better on his own situation.

In addition the lecturer gives instruction about basic communication, the professional pedagogic attitude and the influence possibilities of the zone of the proximal development. The lecturer acts in a professional pedagogic way to stimulate the student to do the same and to scaffold the learning process of the student.
d. Research in the classroom.
   After the intervention again there is research in the classroom (see b.)

e. End-assessment.
   At the end of the traject all the video-materials and reflections are worked out
   in a final report of the students, where competences take a central position.
   There is also a report of the practice coach of the student in the school and of
   the teachers’ education coach. The assessors will go through these materials
   and come to a final conclusion of the level of the competences of the students.

2. Video-analyses of the student-teachers
   The criteria for video-analyses of the student teachers were developed by analysing
   the videos’ different times, in order to get the right criteria for communication,
   professional pedagogic attitude and influence the zone of the proximal development.
   Combining the observation points with the criteria for the competences as used in the
   assessment, a list has been compiled. Again the ten minute videos were analysed on
   these criteria to get valid information about the growth of the competences of the
   student-teachers. I measured if there were differences in the amount of positive
   interaction, comparing the different measurements with each other.

3. Reflection analyses of the students.
   The criteria for reflection analysis were developed by reading the reflections,
   combining them with the criteria of the assessment: communication, professional
   pedagogic attitude and influence the zone of the proximal development. The criteria
   were counted to get information about the growth of the competences of the student
   teachers. After this, it was measured if there were differences between the first set of
   reflections with the last ones.

4. Video-analyses of the children in the classroom
   The criteria for video-analyses of the children were developed by analysing the videos
   different times, in order to get the right criteria for initiatives. Every constructive and
   non-constructive initiative of the classroom children in the ten minute tapes was
   counted. I measured if there were differences in the amount of constructivity by
   comparing the different measurements with each other.

Methods
This research is an integration of practice-oriented and scientific. Ten students and
their classroom children (N=204) were involved in this investigation. Pre-test/post-test
design with an intervention has been used with the students and also in the
classroom.
Students: Assessment, Video-analyses, Reflection.
Classroom children: Rosenberg Self-esteem, observation in the classroom, projection
materials: tree drawings, video-analyses.
Intervention: three times video-analyses with basic communication, professional
pedagogic attitude and the influence of the zone of the proximal development.
Control group: There is a control group (N=40) for the Rosenberg self-esteem test.

Hypothesis 1.
The professional pedagogic competences of the teacher students will be developed by a short intervention by lecturers in teachers-education with video-materials of their own classroom.

1. Comparing the competences in the start- and end-assessment by the Mann-Whitney test
2. Comparing the competences in the video-analyses in the different phases of the video-guidance by the Mann Withney test.
3. Comparing the competences in the reflection-analyses in the different phases of the video-guidance by the Mann Withney test.

Hypothesis 2.
Better professional pedagogic competences of teacher students will influence the self-esteem of the classroom children.

1. This research will be done by an ANOVA (variance analysis) of the Rosenberg pre-and post-test measurement. Alpha = 0,05.
2. The results of the Rosenberg will be compared with the competence measurement of hypothesis 1. Alpha 0,05

Hypothesis 3.
Better professional pedagogic competences of teacher students will change in the initiatives of the classroom children in a more constructive way.

1. Comparing the initiatives in the video-analyses in the different phases of the video-guidance by the Mann Withney test Alpha 0,05.

**Processes**
In the beginning it was difficult to find students for this experiment. Judging themselves on video is a very confrontational experience. During the process students became more satisfied with this intervention. The climate was always very positive and students felt they grew by these activities. The first five students received the intervention by their coach in Windesheim or in the field. The second group of five students were coached by the researcher. Problem was that the first group participants was at the end of their study. They had organisorical problems to undergo the last assessment and to do the post – test. In the second group it went better, because the participants got the total information before starting the traject. These students were prepared for all the parts of the traject.

**Results**

*Hypothesis 1.*
The professional pedagogic competences of the teacher students will be developed by a short intervention by lecturers in teachers-education with video-materials of their own classroom.

1. The competences of the studentteachers in the start- and endassessment are significant better.

<table>
<thead>
<tr>
<th>Pre-posttest</th>
<th>N</th>
<th>Mean Rank</th>
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<tbody>
<tr>
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Competence to coach children in a learning process

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>11</td>
<td>11</td>
<td>22</td>
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<tr>
<td></td>
<td>6,73</td>
<td>16,27</td>
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Competence to interact and communicate with a group

<table>
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<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>11</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>7,64</td>
<td>15,36</td>
<td></td>
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</table>

Competence of reflection

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
<th>Total</th>
</tr>
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<td>11</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>8,55</td>
<td>14,45</td>
<td></td>
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</table>

Competence to work together in a team

<table>
<thead>
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<th>Post</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>8,91</td>
<td>14,09</td>
<td></td>
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</table>

totaal in assessment

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>7,23</td>
<td>15,77</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2. Student competences in an assessment.

2. The communications skills of the student teachers have been improved by the intervention. In the analyse of 10 minute video-fragments this improvement has been found. There is a significant difference in using positive communication Alpha 0,045, the professional position Alpha 0,025 and a positive behaviour Alpha 0,012. Also in the reflections the students showed that they improved their communications skills.

Conclusion Hypothesis 1. Student teachers show a more positive communication and take a professional position after the intervention.

Hypothesis 2.
Better professional pedagogic competences of teacher students will influence the self-esteem of the classroom children.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>136</td>
<td>19,88</td>
<td>3,97</td>
</tr>
<tr>
<td>Post-test</td>
<td>104</td>
<td>20,10</td>
<td>4,4</td>
</tr>
</tbody>
</table>

Figure 3. Results of the Rosenberg total with variance analyse: ANOVA

There is no significant difference between Pre-test and Post test Rosenberg total results Alpha 0,394 as measured with te ANOVA (variance analyse).
A difference has been found with the Mann-Whitney in the satisfaction about themselves: Pre-test: Alpha: 0.032 and almost a significant difference with the positive attitude to themselves: Alpha: 0.068. In all cases a slight tendentious progression has been discovered.

The younger children had been observed by the nursery observation list of CITO. The items gave a significant difference with the Mann Whitney: Children could take more information after the intervention. Also there is a tendency of better play and work behaviour.

*Conclusion Hypothesis 2.* No difference has been found until now in the self-esteem of children who underwent the intervention. Children can take more information and can probably better play and work.

*Hypothesis 3.*
Better professional pedagogic competences of teacher students will change in the initiatives of the classroom children in a more constructive way.

Comparing the initiatives in the video-analyses in the different phases of the video-guidance by the Mann Whitney test Alpha 0.05.

In the small group of 5 student-teachers and their classroom children, there wasn’t found a significant difference with the Mann Whitney test in the initiatives of children. There is a tendency that some differences could be discovered when more groups are observed. In the scheme below we see the counted differences in a ten minutes video-tape of the first four students.

<table>
<thead>
<tr>
<th>student</th>
<th>Video Take</th>
<th>yes-serie</th>
<th>No-serie</th>
<th>vat-principes</th>
<th>Initiatives of children</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>vat-principes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 student</td>
<td>1</td>
<td>12</td>
<td>11%</td>
<td>17</td>
<td>65%</td>
</tr>
<tr>
<td>2 student</td>
<td>2</td>
<td>38</td>
<td>34%</td>
<td>7</td>
<td>27%</td>
</tr>
<tr>
<td>3 student</td>
<td>3</td>
<td>61</td>
<td>55%</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td><strong>totaal stu1</strong></td>
<td></td>
<td><strong>111</strong></td>
<td>100%</td>
<td><strong>26</strong></td>
<td>100%</td>
</tr>
<tr>
<td>1 student</td>
<td>1</td>
<td>42</td>
<td>36%</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>2 student</td>
<td>2</td>
<td>38</td>
<td>32%</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>3 student</td>
<td>3</td>
<td>38</td>
<td>32%</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td><strong>totaal stu2</strong></td>
<td></td>
<td><strong>118</strong></td>
<td>100%</td>
<td><strong>0</strong></td>
<td>100%</td>
</tr>
<tr>
<td>1 student</td>
<td>1</td>
<td>20</td>
<td>15%</td>
<td>5</td>
<td>71%</td>
</tr>
<tr>
<td>2 student</td>
<td>2</td>
<td>62</td>
<td>45%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3 student</td>
<td>3</td>
<td>55</td>
<td>40%</td>
<td>2</td>
<td>29%</td>
</tr>
<tr>
<td><strong>totaal</strong></td>
<td></td>
<td><strong>137</strong></td>
<td>100%</td>
<td><strong>7</strong></td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure 4. Analyse of video-fragments of student behaviour en initiatives of children.

The yes-series are doubled with student 1 and 3. Student 2 was able to maintain a lot of yes-series at the beginning and continued this during the experiment. Parallel to changes we discover that no-series of the three students who used them at the beginning, are decreasing. The VAT-principles increased in the second and third takes. This was probably effective for the classroomchildrens initiatives. A strong increase of the initiatives can be seen when student teachers uses more positive communication.

In the observations of the students by the studentteachers had been discovered that children take more initiatives and feel more satisfied with themselves.

Discussions
This research is a quasi experimental research with a very small group. The total research will be in a group of about 50 (student) teachers and their classrooms. It is necessary to find more detailed information about the self-esteem and initiatives of children. The self-esteemtest has less reliability. There is no matched controlgroup. The students who worked with this programm were very motivated. Although we found some supporting information about the positive effects of this program on the student-teachers and children, we need more research to discover the effects of the programm on the childrens self-esteem and initiatives.

Conclusion
The competences of teachers can be developed by a short intervention with video-coaching. The professional attitude of student-teachers can be learned and practised during this period. Student teachers start with ‘yes-series’, positive communication, in stead of ‘no-series’. They also use the professional pedagogic attitude to let children reflect on their own activities. Children feel more comfortable. Classroom children feel probably more competent by this intervention, think more positive about themselves and take more constructive initiatives. Further research is necessary. It is a task for the teachers-educators to support this process by using practice in the field of education as a way to learn and develop professional pedagogic and didactic competences.

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