A model of teacher behavior and interaction with students was designed using the results of the Questionnaire for Interactional Teacher Behavior (QUIT). Responses were obtained from 91 teachers and 2407 secondary school students. The questionnaire measured teacher behavior, as seen by the teacher and by the students, on scales that ranged from dominance to submission and opposition to cooperation. Case studies were investigated using this model of teacher behavior and teacher-pupil interaction, and these studies resulted in "maps" of interactional teacher behavior and teacher-pupil interaction that illustrated the overall environment of the classroom. Discussion is presented about modification of teacher behavior and attitudes during the professional career, from beginning teacher to more experienced teacher. The teachers' ability to create a favorable working climate is explored. Two types of disorderly classroom situations and accompanying teacher behavior are described. One involves an aggressive and confrontational teacher dealing with an unruly classroom, the other a cooperative and tolerant teacher dealing with a similar situation. (JD)
DISCIPLINE PROBLEMS OF BEGINNING TEACHERS,
interactional teacher behaviour mapped out

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1. Objectives

We know from the results of previous research (Vakgroep Natuurkunde-Didactiek 1978, Veenman 1984) that one of the principal problems facing a new teacher is how to create a favourable (working-)climate in the classroom. The difficulties with 'maintaining discipline' are part of this problem. We also know that new teachers undergo a change of attitude. In the view of many researchers and educationalists this is an undesirable occurrence. According to Zeichner and Tabachnik (1981) research shows that teachers-in-training become more progressive or liberal during their training course but afterwards revert to more traditional attitudes (see also Müller-Fohrbrodt et al. 1978). One of the main purposes of the research reported here was to gain a deeper understanding of the problems of beginning teachers. The method we used was to analyse teacher behaviour and teacher-student interaction processes in classes of young teachers and in classes of older, more experienced teachers.

We considered that teachers' behaviour deserved special study since our research project is concerned particularly with the guidance of new teachers. In our view teacher behaviour is one of the few important elements that a new teacher can alter in order to improve the situation in his lessons.

2. Theoretical basis

We distinguish two aspects of teacher-behaviour. The first is the instructional-methodological aspect and the second the interrelational aspect. The teacher reveals the instructional-methodological aspect of his behaviour in various ways and in various activities e.g. by the choice and organisation of teaching material, the method of transmission (blackboard, audio-visual equipment, etc.), the way he stimulates learning processes, and the setting and marking of tests and examination papers. The interrelational side of teacher-behaviour is concerned mainly with the creation and maintenance of a favourable (working-)climate in the classroom. Of importance here is the kind of relationship which is built up between the teacher and his students. Values, attitudes and emotions play a more important role. This is apparent when, for instance, a teacher has to ask for silence at the beginning of a lesson, or when he has to respond to a student who bursts out crying because his mark is so low. This aspect is much more closely linked with the teacher as an individual than the instructional-methodological aspect. As far as this interrelational aspect is concerned the teacher cannot rely to the same extent on professionalism. Every teacher develops his own personal style with regard to this aspect of his behaviour. We are not suggesting that there are two completely separate categories of behaviour, but we do think that in teaching behaviour often one aspect dominates over the other. Linkages between the aspects exist however. When for instance a teacher has been talking for an hour in an abstract way (an instructional-methodological aspect) this behaviour also has relational implications: it provokes apathy or aggression.

Since discipline problems are the most important problems encountered by beginning teachers, this study concentrates on the interrelational aspect of behaviour. The interrelational aspect of teacher-behaviour can be studied in various ways e.g. through an intrapsychological approach to the teacher as an individual, which includes his beliefs, experiences and attitudes, or from the point of view of developmental psychology where the student is the starting-point. This study adopts a mainly interpersonal approach, following
the work of Witzlawiek et al. (1967) on communication processes. We see the class as forming a communicative system in which on the one hand the teacher's behaviour influences the interaction patterns of the class (i.e. the way in which teacher and students respond to each other both verbally and non-verbally) and on the other hand interaction patterns influence the teacher's behaviour. Therefore we investigate what we shall call the interactional aspect of teacher behaviour. According to our definition, the interactional aspect of teacher behaviour is a term that includes behaviours that refer to the relationship between the teacher and his students and which are expressed in the interaction between the persons communicating in the classroom. The interactional aspect therefore shows how teachers often unwittingly perceive themselves, their students and their mutual relationships and also which things are permitted within that relationship, who is in charge, what kind of behaviour is expected of the students, how the information coming from the teacher is to be 'picked up', etc.

In our approach the problems that teachers encounter in dealing with students are characterised as features of the cyclical communication processes that take place between teachers and students. In this paper no attempt is made to analyse the psychological and social causes of troublesome student behaviour or the objectives and motives behind such behaviour. We are primarily interested in discovering in what way certain communication patterns cause students to engage in annoying or provocative behaviour. In these situations it is important that the teacher knows how to use his own behaviour to change the undesirable communication pattern that has developed. Therefore it is not the students' behaviour which should be the focus for corrective efforts, but the behaviour of the teacher himself. The question 'why is this student so irritating?' must first be rephrased as follows: 'why is this student so irritating in my lessons?' and thereupon: 'which feature of my teaching-behaviour causes this student to be so irritating in my lessons?' Through this reformulation the problem becomes more teacher-oriented and thus easier to cope with.

A model for interactional teacher-behaviour has been developed. This model is a modification of a model used by Leary (1957) to map interpersonal behaviour. The model maps interpersonal behaviour with the help of an influence-dimension (Dominance - Submission) and a proximity-dimension (Cooperation - Opposition). These dimensions are then represented in a pie chart divided into eight equal sectors. Every instance of interactional teacher-behaviour can be placed within the system of axes. The closer the instances of behaviour are placed in the chart, the closer they resemble each other and the more similar are their effects on the students.

The model can be used to analyse what the teacher does when he interacts with students and more specifically to analyse the effects of those actions on the students and on the pattern of teacher-student interactions. In this model teacher-behaviour is therefore considered in relation to the communication pattern that manifests itself in the teacher-student interactions. The sectors are labelled DC, CD, etc. according to their position in the circle. DC means that in this sector the Dominance-aspect prevails over the Cooperation-aspect; both characteristics are, however, part and parcel of DC-behaviour. To clarify the concepts covered by each sector, figure 1 shows expressions of behaviour typical of each sector.

The dimensions of the Leary model are often used to describe interpersonal behaviour and can be considered as elementary dimensions in education (Schaefer 1959, Foa 1961, Slater 1962). Dunkin and Biddle (1974, page 94) conclude that at least two comparable dimensions are required to describe teacher behaviour, namely warmth and directiveness.
3. Methods and Data source

3.1. The QUIT

Using the model as a basis, we have succeeded in constructing an instrument for plotting teacher-behaviour in its interrelational context: The instrument which has undergone 3 major revisions is called the Questionnaire for Interactional Teacher-behaviour (QUIT). 1) The questionnaire consists of 77 items. The answers given by students and teachers can be used to reveal

1) At this moment the QUIT is only available in Dutch. An English version is under construction.
relatively stable patterns in the teacher-student relationship in the classroom in secondary schools. The questionnaire has eight scales each consisting of nine, ten or eleven items. Every scale corresponds to one of the eight sections of the model. Examples of items are 'he has authority' (sector DC), 'he apologises' (sector SO), 'he threatens to punish you' (sector OD). The items are to be answered on a five point scale (no/not always). From the item scores, scale scores are constructed ranging from 0.0 to 1.0. The higher the score in a sector the more significantly or frequently the behaviour of that sector is displayed. The results of the questionnaire can also be represented in a figure in which part of a sector is shaded in such a way that the degree of shading is a measure of the height of the subscale scores. The QUIT can be answered by students in relation to the behaviour of a teacher and by teachers in relation to their actual behaviour or in relation to the behaviour they would like to display. Using this instrument, interactional teacher-behaviour can be examined empirically. It is also suitable for giving feedback to teachers regarding their behaviour.

In order to gather information about the reliability and validity of the QUIT we analysed the answers given by 91 teachers and 2407 students in 111 classes (aged 13-16 years old) with regard to the behaviour of a specified teacher. In addition it was completed by 80 students twice at an interval of 4 weeks. The purpose of this was to determine the test-retest reliability.

**Reliability of the QUIT**

Table 1 gives the most important data on the test-retest reliability, the internal consistency (Cronbach's $\alpha$) and the intra-class correlation. The QUIT turns out to be a reliable questionnaire especially when mean class scores are computed. Among the 334 correlations between items in the same subscale only three are over .70 (resp. .71, .71 and .74). Following Pettigrew and Wolf (1982) we can say that only very little inter-item redundancy occurs.

<table>
<thead>
<tr>
<th>sector</th>
<th>number of items</th>
<th>test-retest reliability n=80 students</th>
<th>Cronbach's $\alpha$ answered by teachers n=91</th>
<th>Cronbach's $\alpha$ answered by students aged 13-16 years, n=2407 students, 111 classes</th>
<th>Intra-class correlation 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>10</td>
<td>.80</td>
<td>.89</td>
<td>.85</td>
<td>.93</td>
</tr>
<tr>
<td>CD</td>
<td>10</td>
<td>.84</td>
<td>.76</td>
<td>.87</td>
<td>.96</td>
</tr>
<tr>
<td>CS</td>
<td>10</td>
<td>.80</td>
<td>.77</td>
<td>.86</td>
<td>.96</td>
</tr>
<tr>
<td>SC</td>
<td>9</td>
<td>.70</td>
<td>.87</td>
<td>.79</td>
<td>.92</td>
</tr>
<tr>
<td>SO</td>
<td>9</td>
<td>.69</td>
<td>.90</td>
<td>.87</td>
<td>.96</td>
</tr>
<tr>
<td>OS</td>
<td>11</td>
<td>.65</td>
<td>.86</td>
<td>.84</td>
<td>.95</td>
</tr>
<tr>
<td>OD</td>
<td>9</td>
<td>.76</td>
<td>.78</td>
<td>.80</td>
<td>.94</td>
</tr>
<tr>
<td>DO</td>
<td>9</td>
<td>.74</td>
<td>.80</td>
<td>.77</td>
<td>.91</td>
</tr>
</tbody>
</table>

1. Most of the data used in our study are based on the class means calculated for the students in one class answering the QUIT with regard to the same teacher.
2. Calculated with a formula given by Horst (1949).

Table 1: Data on the reliability of the QUIT.
We present some of the information we gathered regarding the validity of the QUIT and the extent to which it is an accurate representation of the Leary model.

Table 2 gives the correlations between subscales both for student- and teacher data. On the whole these data justify the circular positioning of the subscales.

<table>
<thead>
<tr>
<th>CD</th>
<th>CS</th>
<th>SC</th>
<th>SO</th>
<th>OS</th>
<th>OD</th>
<th>DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>.61</td>
<td>.48</td>
<td>.50</td>
<td>.35</td>
<td>-.12</td>
<td>-.41</td>
<td>-.72</td>
</tr>
<tr>
<td>.96</td>
<td>.76</td>
<td>.38</td>
<td>.09</td>
<td>-.34</td>
<td>-.37</td>
<td>-.68</td>
</tr>
<tr>
<td>.44</td>
<td>.30</td>
<td>.23</td>
<td>-.15</td>
<td>-.24</td>
<td>-.08</td>
<td>-.33</td>
</tr>
<tr>
<td>.34</td>
<td>.52</td>
<td>.44</td>
<td>.49</td>
<td>.29</td>
<td>.15</td>
<td>.76</td>
</tr>
<tr>
<td>.76</td>
<td>.60</td>
<td>.53</td>
<td>.44</td>
<td>.58</td>
<td>.54</td>
<td>.02</td>
</tr>
</tbody>
</table>

Table 2. Correlations between subscales for data gathered from students (n=2407) and teachers (n=91).

- Factor analyses performed on item scores for the student data largely validate our division of the items into subscales (Creton and Wubbels, 1984).
- Analysis of Variance was carried out on the data provided by 2407 students in 111 different classes who answered the QUIT relating to the behaviour of 111 different teachers. It appears that 48 to 62% of the total variance in the subscale scores is accounted for by the teacher effect.
- We conclude that the QUIT is a useful instrument for showing up the differences in the behaviour of individual teachers.
- We can say therefore that the QUIT is a reasonably valid questionnaire.

3.2. Data gathering

Data were collected, using the QUIT and with the help of case studies. In the case studies the methods used were classroom observations and analysis of logbooks and audio-taped interviews between supervisor and teacher. In this way we gathered detailed descriptions of the experiences and teaching behaviour of ten beginning teachers.

The QUIT was used to study the perceptions of students and of teachers of teacher behaviour. We selected at random 118 teachers in 4 schools. We asked students of a class of each of these teachers to complete the QUIT about the behaviour of these specified teachers. All kinds of presage variables for these teachers were collected e.g. his age, the subject matter he teaches, number of years in the profession, sex etc. In addition we asked 24 beginning teachers, and 22 teachers with 3 to 10 years experience to answer the QUIT in terms of the behaviour they would like to display (their ideal). Students in one class of each of these teachers answered the QUIT in relation to the behaviour of these specified teachers. Finally some randomly selected students (357) answered the QUIT also in relation to the behaviour of the teacher they individually considered as to be their best teacher. Some other students (341) answered the QUIT in relation to the behaviour of the teacher they considered to be their worst teacher.
4. Some results

4.1. The average teacher

<table>
<thead>
<tr>
<th>Sector</th>
<th>'Average teacher' mean studentscores for 118 randomly selected teachers and st.dev.</th>
<th>The best teacher mean studentscores (357 students) for their best teacher and st.dev.</th>
<th>The worst teacher mean studentscores (34 students) for their worst teacher and st.dev.</th>
<th>The ideal teacher mean teacherscores (46 teachers) for the ideal teacher and st.dev.</th>
<th>t-value of t-test on mean best and worst teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>.56 .17</td>
<td>.70 .13</td>
<td>.36 .20.</td>
<td>.80 .07</td>
<td>27.5</td>
</tr>
<tr>
<td>CD</td>
<td>.54 .20</td>
<td>.75 .14</td>
<td>.22 .17</td>
<td>.78 .10</td>
<td>45.6</td>
</tr>
<tr>
<td>CS</td>
<td>.61 .18</td>
<td>.76 .14</td>
<td>.28 .19</td>
<td>.80 .11</td>
<td>39.1</td>
</tr>
<tr>
<td>SC</td>
<td>.43 .14</td>
<td>.50 .17</td>
<td>.33 .23</td>
<td>.49 .12</td>
<td>11.2</td>
</tr>
<tr>
<td>SO</td>
<td>.26 .17</td>
<td>.20 .13</td>
<td>.37 .27</td>
<td>.16 .10</td>
<td>-10.1</td>
</tr>
<tr>
<td>SQ</td>
<td>.22 .15</td>
<td>.15 .13</td>
<td>.52 .22</td>
<td>.12 .06</td>
<td>-37.1</td>
</tr>
<tr>
<td>SD</td>
<td>.14 .18</td>
<td>.27 .15</td>
<td>.61 .22</td>
<td>.22 .09</td>
<td>-24.3</td>
</tr>
<tr>
<td>DO</td>
<td>.17 .14</td>
<td>.33 .14</td>
<td>.55 .22</td>
<td>.35 .13</td>
<td>-16.8</td>
</tr>
</tbody>
</table>

Table 3 Mean sector scores and standard deviation for different samples and results of t-tests on mean sector scores for best and worst teacher (all t-values are significant p < 0.001).

One of the points that has been studied is how students at four secondary schools view the behaviour of the 'average teacher' (column 1 of table 3 and fig.2). We performed a multivariate multiple regression analyses, taking the sector scores as dependent variables and teacher and student characteristics as independent variables (Céron and Wubbels 1984). From this analysis we have indications that the interactional teacher behaviour of the 'average teacher' is not greatly influenced by the type of secondary school at which the teacher teaches, by sex of the teacher, and by the subject matter he teaches. Furthermore age and sex of the students seem not to influence strongly the students' perception of interactional teacher behaviour. What strikes us when looking at figure 2 is the relatively high scores in sectors DC (providing leadership), CD (friendly) and CS (understanding), and the relatively low scores in sectors SO (uncertain) and OS (dissatisfied). An interactional pattern of this kind is characteristic for the teaching profession. This has to do with the situation in which a teacher finds himself: he is the adult facing children and the expert facing learners.

4.2. Norms of students and teachers

Column 2 and 3 of table 3 give the mean sector scores for students' perception of the behaviour of their best and their worst teacher. Column 4 gives the scores for the perception that teachers have of ideal teacher-behaviour. Figure 3, 4 and 5 visualises these perceptions. It is very striking that the ideal that teachers have of teachers' behaviour shows a strong resemblance to the average image that students have of their best teachers. The behaviour sectors DC, CD and CS for both the 'ideal teacher' and the 'best teacher' are more shaded than these sectors for the average teacher (cf. fig.2), while the SO, OS and OD sectors are less shaded.
Figure 2 (Averaged) interactional teacher behaviour as viewed by students at four secondary schools.

Figure 3 The best teacher as seen by secondary school students.

Figure 4 The worst teacher as seen by secondary school students.

Figure 5 The ideal image of interactional teacher behaviour as perceived by teachers.

than the corresponding sectors for the average teacher 1). Apparently teachers and students agree on the interactional behaviour that good teachers should exhibit. The importance that teachers and students attach to the demonstration of DC, CD and CS behaviour becomes even more manifest when we compare the interactional behaviour of the 'ideal' (fig.5) and 'best' teacher (fig.3) with the image that most students have of their worst teachers (fig.4). It also becomes clear from this comparison that if a teacher shows a great deal of behaviour that falls into the opposing sectors, namely SO, OS and OD, he generally is regarded by students to be a bad teacher.

1) T-tests performed on the mean scores for the average and the best teacher show significant differences for all sectors (p < 0.01). Significant differences for all sectors are also found for the average and the worst teacher (p < 0.001).

The importance that teachers and students attach to the demonstration of DC, CD and CS behaviour becomes even more manifest when we compare the interactional behaviour of the 'ideal' (fig.5) and 'best' teacher (fig.3) with the image that most students have of their worst teachers (fig.4). It also becomes clear from this comparison that if a teacher shows a great deal of behaviour that falls into the opposing sectors, namely SO, OS and OD, he generally is regarded by students to be a bad teacher.

1) T-tests performed on the mean scores for the average and the best teacher show significant differences for all sectors (p < 0.01). Significant differences for all sectors are also found for the average and the worst teacher (p < 0.001).
The difference between corresponding sector scores for the best and the worst teacher (table 3, columns 2 and 3) gives an indication of what students think is the most important factor for distinguishing between good and bad teachers. In fact a more accurate measure of this distinction is the t-value of the t-tests done on the mean sector scores for the best and the worst teacher. The larger this t-value of a sector the more important students think the behaviour of that sector for distinguishing between good and bad teachers. These t-values are listed in column 5 of table 3. From these values we can see that from the students' point of view good teachers are distinguished from bad teachers most by the amount of kindness, understanding and helpfulness they show. Other distinctions, but less important, are the amount of leadership teachers provide and the amount of dissatisfaction they display.

4.3. The modification of interactional teacher behaviour over the years.

To illustrate the characteristics of the behaviour of teachers with varying numbers of years of experience in the teaching profession we give (in table 4) the sector scores for 24 teachers in their first year of teaching, for 47 teachers with 3-10 years experience and for 19 teachers older than 45 years and having at least 10 years experience. The last two groups are taken from the random sample. The results of t-tests (column 4 and 5 of table 4) show in what ways
1. beginning teachers differ from their young but experienced colleagues and
2. older experienced teachers differ from their young but experienced colleagues

Figure 6 and 7 visualizes these differences.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Beginning Teacher</th>
<th>Young but Experienced</th>
<th>Older Teacher</th>
<th>t-value of t-tests on mean scores for the beginning and the young but experienced teacher</th>
<th>t-value of t-tests on mean scores for the older and the young but experienced teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>0.40 .13</td>
<td>0.60 .12</td>
<td>0.54 .13</td>
<td>-6.4*</td>
<td>-1.4*</td>
</tr>
<tr>
<td>CD</td>
<td>0.49 .11</td>
<td>0.60 .14</td>
<td>0.43 .14</td>
<td>-3.1*</td>
<td>-3.0*</td>
</tr>
<tr>
<td>CS</td>
<td>0.57 .13</td>
<td>0.58 .13</td>
<td>0.34 .12</td>
<td>-1.2*</td>
<td>-1.2*</td>
</tr>
<tr>
<td>SC</td>
<td>0.47 .17</td>
<td>0.48 .13</td>
<td>0.47 .10</td>
<td>-0.1</td>
<td>-0.7</td>
</tr>
<tr>
<td>SO</td>
<td>0.57 .15</td>
<td>0.46 .11</td>
<td>0.27 .12</td>
<td>7.0*</td>
<td>7.0*</td>
</tr>
<tr>
<td>OS</td>
<td>0.28 .13</td>
<td>0.27 .10</td>
<td>0.64 .12</td>
<td>-4.2*</td>
<td>-4.2*</td>
</tr>
<tr>
<td>DO</td>
<td>0.36 .14</td>
<td>0.36 .14</td>
<td>0.43 .13</td>
<td>-5.0</td>
<td>-3.1*</td>
</tr>
<tr>
<td>SO</td>
<td>0.12 .09</td>
<td>0.13 .10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .01

Table 4: Mean sector scores and standard deviation for teachers with varying numbers of years of experience. Results of t-tests performed on mean sector scores.

Beginning teachers

Beginning teachers differ from their young but experienced colleagues especially in the amount of leadership they provide (DC) and in uncertain (SO) behaviour: they give less guidance to students and are more uncertain. On the other hand there is no difference in the disciplinary/strict (DO) behaviour that these two groups of teachers display and they allow students the same amount of scope (SC).

When we compare the scores for the beginning teacher with the scores for the best teacher we find that what students miss most of all in the behaviour of
beginning teachers is behaviour from the DC sector. On the other hand stu-
dents think that beginning teachers exhibit too much behaviour in the SO-
sector. It is clear from our case studies that as far as the 00-sector is
concerned, new teachers are particularly short of behaviour with a low
intensity (weakly opposing behaviour). Beginning teachers do not have a very
many behavioural nuances with increasing intensity at their disposal. They
are for instance less able to handle techniques such as glancing at a
student, interrupting the lesson for a second, stopping the lesson and
calling out the name of the student, taking a student to task, reprimanding
a student, doing this severely, doing this showing irritation, etc. Many
beginning teachers often wait a long time before showing a student that he
is being a nuisance. Then after a long silence they suddenly lash out at a
student who happens to be opening his mouth. Such sudden explosions on
seemingly trivial grounds often increase the disorder, because they are ill-
applied to what is happening at that particular moment. Students experience
such unexpected violent outbursts as unreasonable; this has a negative
influence on the classroom climate.

As a result of our cross-sectional research we are able to make a few
assumptions concerning the changes that occur in interactional teacher-
behaviour in the course of a teacher's professional career. These assum-
ptions will of course have to be tested in future longitudinal research.
On the basis of our results we assume that for teachers gaining experience
during the first professional years in most cases means showing more leader-
ship and becoming less uncertain. We believe that as a result of this change
the incidence of unruly behaviour in their classes decreases. Thus they get
more frequent opportunities to show helpful and understanding behaviour and
are less strongly forced to be punitive. To the students the display of more
leadership behaviour is an important factor in distinguishing good teachers
from bad. But we showed earlier, that to them an even more clear-cut distin-
ction between good and bad teachers is the amount of friendly and under-
standing behaviour displayed. This type of behaviour also increases in the first
few professional years, even if considerably less than leadership behaviour. In our opinion this result signifies that at teacher-training colleges and in the supervision of new teachers much more attention should be given to the training and moulding of leadership behaviour.

Older teachers
Our study also shows that older, very experienced teachers (over 45 years of age) behave stricter and less friendly and understanding towards students than do their younger colleagues. When we compare figures 6 and 7 with figures 3 and 5 we can see that the behaviour of the young but experienced teachers bears a closer resemblance to that of the best and the ideal teacher than does the behaviour of both beginning and older teachers. So the relationship of these older teachers and of beginning teachers to their students is on average worse than is the relationship of their younger experienced colleagues to students, according to the norms of both teachers as well as students.

4.4. Modification of the attitude and behaviour of beginning teachers

According to data obtained from previous research, the attitudes of young teachers in their first professional year shift, under the influence of school norms and the behaviour of their experienced colleagues (conformity), in a more traditional direction (they become more strict) and their behaviour becomes more authoritarian (e.g., Hoy and Rees 1977, Zeichner and Tabachnik 1981, Müller-Fohrbrodt et al. 1978, Walter 1974, Bergmann-1976, Hänself 1975).

Table 5 gives the sector scores for the behaviour of the ideal teacher in the eyes of beginning and young experienced teachers respectively.

<table>
<thead>
<tr>
<th></th>
<th>DC</th>
<th>CD</th>
<th>CS</th>
<th>SC</th>
<th>SO</th>
<th>OS</th>
<th>OD</th>
<th>DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal teacher according to 22 young experienced teachers</td>
<td>.81</td>
<td>.81</td>
<td>.84</td>
<td>.53</td>
<td>.18</td>
<td>.09</td>
<td>.22</td>
<td>.33</td>
</tr>
<tr>
<td>Ideal teacher according to 24 beginning teachers</td>
<td>.78</td>
<td>.76</td>
<td>.76</td>
<td>.45</td>
<td>.14</td>
<td>.14</td>
<td>.21</td>
<td>.37</td>
</tr>
<tr>
<td>t-value on mean scores for the two ideals</td>
<td>-1.2</td>
<td>-1.8</td>
<td>-2.8*</td>
<td>-2.2*</td>
<td>-1.5</td>
<td>2.5*</td>
<td>.3</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Table 5 Comparison of the perception that beginning teachers and young experienced teachers have of the ideal teacher.

1) We studied the 22 young experienced teachers because we were not able to collect data on the ideal of the 47 teachers in the random sample. To examine whether the 22 teachers were a representative sample we performed t-tests on the mean sector scores for students answering the QUIT for the 22 teachers and for the 47 randomly selected teachers with 3-10 years experience. These tests did not reveal significant (p < .01 level) differences between the two groups of teachers. We conclude that the 22 teachers can be representative for the random sample as far as the interactional teacher behaviour is concerned.
It is found that according to our results young experienced teachers want to leave more scope to students than do beginning teachers and want to be more understanding and less dissatisfied than do beginning teachers. These results need not be incompatible with results of the research mentioned above, for it is possible that already in the very first weeks on the job beginning teachers experience a change of attitude towards an ideal which involves more strict behaviour. So the beginning teachers that we investigated probably had already changed their attitude.

On the basis of the results of the present study, it can however be assumed that this change should not be interpreted in terms of conformation on the part of the beginning teacher to the standard norms of the school. This change cannot be labelled as a conformation since in their first professional year beginning teachers have an ideal of teaching behaviour in which moderate (SC) and understanding (CS) behaviour is less prominent than it is in the ideal of teachers with 3 to 10 years experience. So the latter want to allow more scope to students and thus want to behave less strict than beginning teachers. We think that a change of ideal in the first few weeks on the job is much more a consequence of the fact that teachers have come to realize that they are often unable to create the kind of classroom situations they desire than a consequence of conformation to the norms and beliefs of experienced colleagues. New teachers lack the skills they need to achieve their ideal.

Figure 6 gave the results of a comparison of the actual behaviour of beginning teachers and that of young experienced teachers. It may be that, just as in case of the ideal, the behaviour of beginning teachers changes in the very first weeks on the job. Their behaviour may become more strict (DO) and they display more corrective behaviour (00). As we pointed out above, change in attitude could not be attributed to conformation. Our results on actual behaviour indicate that the change in actual behaviour can be interpreted as conformation to the behaviour of more experienced colleagues either. Only in the case of a switch to strict behaviour might the change be interpreted as conformation. The amount of corrective behaviour that beginning teachers use is however much greater than the amount used by their relatively young but experienced colleagues and by the average teacher, i.e., there is no conformation as far as corrective behaviour is concerned.

If educators interpret the change of attitudes and behaviour in terms of conformation they may be led to think that they should help student-teachers to form an ideal concept that will prove 'school-resistant'. However the results of our research indicate that it is much more important that beginning teachers should realize they lack the necessary skills, particularly leadership skills, to achieve their ideal. At the same time they should learn to choose appropriate forms of classroom organisation so as to create manageable classroom situations. These situations will fall short of their ideal, but will enable them to add to the skills they already possess. At a later stage by using the skills they have acquired they may be able to come much nearer to achieving their ideal. In our opinion this course of action is contrary to that usually followed by beginning teachers: right from the start they try to achieve a situation that approaches their ideal, but such a situation calls for skills they do not possess. This causes disorder, which forces them to act much more strictly. As a result of these experiences they tend to abandon their ideal and consider it unattainable. This sometimes gives rise to a behavioural repertoire which can be characterised as survival behaviour; it is too limited and, in the whole it has little growth potential.
4.5. No discipline

Using the QUIT we are able to distinguish five different patterns of teacher behaviour. Two of these are displayed by teachers whom students consider to be very good and three by teachers whom students consider to be very bad (Créton and Wubbels, 1984). Two of these last three patterns we found displayed particularly by beginning teachers in disorderly classroom situations. In figures 8 and 9 we present characteristic examples of teacher behaviour patterns as seen by students in these classroom situations.

Figure 8 Example of students' perception of teacher behaviour in a class where an aggressive kind of disorder prevails (collected with the QUIT)

Figure 9 Example of students' perception of teacher behaviour in a class where a tolerant kind of disorder prevails (collected with the QUIT)

We can describe these classroom situations and the accompanying teacher-behaviour pattern in more detail on the basis of the case studies. There are two types of disorder: one can be characterised as tolerant, the other as aggressive. In this paper we shall not describe the two remaining patterns for good teachers or the third pattern for bad teachers, which are found mainly in classes of experienced teachers.

The aggressive kind of disorder.

The aggressive kind of disorder is the most disastrous situation in which a teacher can find himself. It is a symmetrically escalating (Watzlawick et al., 1967) communication pattern in which both sides pick on the aggressive behaviour of the other as an excuse to react even more aggressively. Teacher and students face each other as opponents and put almost all their energy into 'the discipline game'. In this classroom situation the students do not allow the teacher to ignore the noise and concentrate on the subject matter. Every time the teacher tries to explain things the students will aggravate the disorder and they take every opportunity to disturb the lesson. The teacher displays a great deal of 'opposite behaviour' and he fights the students on their own level. You can see this for instance when the teacher and a student pull on opposite sides of a book. The teacher thinks that he has the right and that it is even his duty to snatch the book away from the student because that student is drawing pictures in it all the time. The student in his turn takes the view that the teacher should not touch his property.
When an aggressive kind of disorder exists nobody can concentrate on the subject matter. Students get up from their seats, snatch one another's books, laugh and shout at the top of their voices. They provoke the teacher. This happens for instance when a student hits a fellow student's head with a book. The latter student will scream 'OW' loudly and react very indignantly. Afterwards however he will turn to his friend and smile at the offender. The reactions of the teacher to disturbances are generally violent, arbitrary and panicky. He suddenly sets impositions for many students but not for the real culprits. Those who are responsible for the disturbances are often clever enough to be quiet when the teacher explodes. Because of the unbalanced and unpredictable reactions of the teacher the students feel that their opinion about the lessons of this teacher is confirmed and they increase their disruptive efforts. Therefore aggression and noise continue to escalate.

The teacher confronted with this classroom situation often gives many low marks. In his view this is a logical consequence of the students' inattention. He is afraid that good marks will encourage students to increase their disorderly behaviour; but what in fact happens is that the low marks increase the disorder. The students put the blame on the teacher: to them the fact that nearly all students have low marks is proof that the teacher is not able to explain things well and this is why they feel free to be even more annoying and provocative. In this way low marks cause the disorder to escalate.

Because of the troublesome behaviour of the students the teacher does not feel inclined to make his lessons attractive and he does not want to listen to students' suggestions: "first of all they'll have to learn how behave properly". When students for instance ask for a test to be postponed, the teacher logically does not want this. To the students however this is again proof that the teacher is being unreasonable. Teacher and students together are prisoners of the communication pattern. One side is not more guilty than the other. The teacher strengthens the unreasonable behaviour of students and vice versa.

Possibly the greatest tragedy for the teacher is that he tries his hardest to change the situation, but his attempts only strengthen the unwanted communication pattern. He feels his harshly corrective actions are justified in view of the 'unjustifiable' behaviour of the students. This very notion however, puts the blame from start to finish on the other person - in this case the students - also keeps the teacher imprisoned by the communication pattern. It is a way of looking at things that prevents him from solving his problem (this is a punctuation problem, Watzlawick et al., 1967).

The tolerant kind of disorder.

In a classroom situation with the tolerant kind of disorder the teacher displays much 'cooperative behaviour'. This behaviour is expressed for instance in the way he 'looks after' students especially as far as the mastering of subject matter is concerned. The teacher is ready to explain things again and again even to a student who has not been paying any attention and has been a nuisance all the time. The teacher feels frustrated because the students seem not to appreciate the efforts he is making to help them master the subject matter. Nevertheless his opinion is that it is better to adapt to the students than to seek a confrontation with them. When students ask for a test to be postponed he will often give in and when they complain about their marks afterwards he will make them higher.

The classroom is very noisy, but the disturbances are less frequent and not
as violent as in the aggressive kind of disorder. When the teacher reacts to
slight disturbances he does this in a stereotyped way. His attempts to stop
disturbances lack emphasis and consequently have no effect on the students.
Neither teacher nor students seem to find this strange; it is "the normal
way things work out". The most important difference between this type of
disorder and the aggressive type is that students and teacher are not oppo-
nents. It seems as if there is a tacit agreement that teacher and students
can go their own way.

Students in a classroom where a tolerant kind of disorder prevails are
engaged in all kinds of activities other than concentrating on the subject
matter of that lesson. Some may play cards, some play with their calculator,
some prepare work for another lesson etc. Only the students sitting in front
of the teacher face the teacher and attend a bit. The teacher is very busy
explaining the subject matter. He talks quickly and loudly, often with his
face to the blackboard and only occasionally faces the students in front of
him. It seems as if he tries to ignore the noise by concentrating on the
subject matter. Students do not provoke him and that is why it is possible
for him to concentrate on the subject matter and forget the disorder.
Sometimes in such a situation suddenly things get too much for the teacher
and he is not able to control himself anymore; he explodes. He doles out
punishments, but later if students ask, he is often ready to retract the
punishment.

Students consider such a teacher to be a weak person without authority, but
they also think he is friendly, too clever for them; he is kind but cannot
explain things well. They feel guilty about the disorder they bring about-in
contrast to the situation where there is aggressive disorder: in that situa-
tion students are very indignant that they have 'such a bad teacher'.

5. Concluding remark

In our project we have developed a way of helping teachers in disorderly
classroom situations to create a working climate. The essence of the method
is that the teacher has to interrupt the prevailing communication pattern.
Therefore he has to make radical changes in his behaviour and in the way he
organises his lessons. Often these changes are in a direction contrary to
his natural inclination (Créton and Wubbels 1984).

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