This paper describes the preliminary findings of a training program to develop skills of Dutch primary school principals in coaching teachers for improved teaching. The major research questions addressed whether the 28 school principals who participated in the training program implemented the target coaching skills whether teachers coached by the trained school perceived a change in the coaching skills of the school principals. A training manual was developed and used in a one-day workshop for the principals focusing on skills relevant to the confrontational conference, pre-conference, observation, and post-conference. A quasi-experimental, treatment-controlled group investigation was used to test the effects of the training program. The coaching of trained versus untrained school principals (n=21) was rated by expert judges. Then the coaching of the trained versus untrained school principals was rated by the coached teachers. Based on the pre- and post-training ratings of coaching conferences, a significant treatment effect was found in regard to coaching skills concerned with the development of autonomy (empowerment), feedback, and agreement on classroom observational goals. Although the training was directed at the functions of consulting and confronting, the majority of the school principals conducted coaching conferences that emphasized consulting. (Contains 31 references.) (JLS)
THE SCHOOL PRINCIPAL AS COACH

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Abstract

The study describes the preliminary findings of a program for the training of coaching skills with Dutch primary school principals. To assist school principals in their attempts to coach teachers, a training program was designed: *The school principal as coach*. A quasi-experimental, treatment-control group investigation was then set up to test the effects of this program. Based on the pre- and post-training ratings of coaching conferences, a significant treatment effect was found for the coaching skills concerned with the development of autonomy (empowerment), feedback, and agreement on classroom observational goals. The pre- and post-training ratings from the coached teachers themselves showed a significant treatment effect for the coaching skills concerned with the development of improvement plans. Although the training provided for the school principals was directed at the coaching functions of consulting and confronting, the majority of the school principals conducted coaching conferences that emphasized predominantly the function of consulting.
Since the eighties in The Netherlands and elsewhere, many governments have pursued a policy of decentralisation in education. This policy of decentralisation presupposes an increase in the autonomy of schools. Schools are being given more opportunities to develop and carry out their own policy with regard to the content and quality of education, school budgeting, personnel requirements, and teacher supervision and development. Schools are expected to become professional organizations, and these new developments are placing heavy demands on the management and leadership capabilities of school principals. One of the new functions of the school principal that thus deserves greater attention in the restructuring of Dutch schools is 'the principal as supervisor.' This function refers to observation and monitoring to ensure the quality of the work at school and provide feedback and direction for the improvement of teacher performance.

**THE SCHOOL PRINCIPAL AS INSTRUCTIONAL LEADER**

Studies of what school principals actually do have shown them to spend relatively little time directly attending to teaching and learning. Hager and Scarr (1983) asked principals to specify how they actually spend their time and how they would ideally like to spend their time. Clear discrepancies between the two sets of responses suggest that many principals fail to spend time in the ways that they judge most desirable. The principals would prefer to spend more time on staff and program development along with evaluation, which are activities closely associated to instructional improvement.

Smith and Andrews (1989) also found a clear discrepancy between what principals thought they should devote their time and attention to and how they actually spent their time. The studies by Martin and Willower (1981) and Kmetz and Willower (1982) suggest that, on
average, principals spend only 2.5% to 10% of their time in classrooms. In the Netherlands, the Inspectorate (Inspectie van het Onderwijs, 1994, 1995) found that about 50% of the beginning teachers in elementary schools and about 67% of the beginning teachers in secondary schools were not observed by their principals or mentor teachers during their first years of teaching.

During the past few decades, effective school studies have emphasized that the capacity of schools to improve teaching and learning is strongly mediated by the quality of leadership exercised by the principal. The effect of principals on school performance and student learning may be indirect (Goldring & Pasternack, 1994; Hallinger & Leithwood, 1994; Leitner, 1994) or direct (Cheng, 1994; Levine & Lezotte, 1990). Principals may indirectly influence learning in the school by developing clear purposes and goals which may increase teacher commitment and understanding of their roles. Principals may directly influence learning in the school by visiting classrooms combined with constant personal surveillance of school activities and 'sense-making' (i.e., figuring out what is taking place in the classrooms and determining what may contribute to improved learning for all students; Levine & Lezotte, 1990). In order to translate school goals into classroom practice, the school principal has to coordinate the classroom objectives of the teachers with those of the school, provide clear instructional support and monitor the classroom instruction.

Duke (1987) points to seven situations that instructional leaders must be prepared to deal with: (1) teacher supervision and development; (2) teacher evaluation; (3) instructional management and support; (4) resource management and support; (5) quality control; (6) coordination; and (7) troubleshooting. Although all of these situations are crucial for effective instructional leadership, this paper is restricted to the teacher supervision and development component. In our opinion, this is the most critical situation for the instructional leader to
deal with. It is also in this context that the actual improvement of instruction is most likely to occur.

THE PRINCIPAL AND THE MARGINAL TEACHER

One of the problems that the school principal can encounter is the teacher functioning at substandard levels. Although there seems to be disagreement in differentiating between marginal and incompetent teachers, most experts provide similar descriptions. On the one hand, Sweeney and Manatt (1984, p. 25) provide the following picture of a marginal teacher: "One who appears to have sufficient command of the subject matter, but whose lack of classroom management skills gets in the way of student learning." On the other hand, Ehrgott et al. (1993, p. 6) define an incompetent teacher as "one who lacks the abilities, power, and/or fitness to ever meet the legal qualifications for performing the duties and responsibilities of a classroom teacher." According to Bridges (1992), incompetence has come to mean blatant failure in performing one's duties. A marginal teacher is not performing up to standard but is not incompetent. The distinction between a marginal teacher and an incompetent teacher is important because it has a direct bearing on the steps to be taken by the school principals. Much of the literature points in the direction of dismissal as the most plausible way to deal with incompetent teachers (Bridges, 1992; Lawrence et al. (1993). The performance of marginal or malfunctioning teachers, however, can be improved with an adequate diagnosis and the adoption of appropriate remediation strategies as marginal teachers are capable of reasonable performance. It is also therefore important that marginal teachers receive the available assistance for the improvement of their performance. The principals must acknowledge an obligation to help these teachers succeed (Ehrgott et al., 1993).
Often principals are not prepared to provide assistance to marginal teachers. A study by Herman (1993) shows that none of the principals were professionally prepared to implement plans of assistance and to coach teachers. Bridges (1992) also concluded that school principals are ill prepared to deal with marginal teachers, and this situation certainly applies in The Netherlands. At present, there is no legal regulation which requires specific training as a prerequisite to becoming a school principal (Veenman, 1990). In-service training for educational administration and management has only recently been offered to school principals. To assist school principals in their attempts to improve teaching performance and deal with teachers who are not performing up to standard, a training program for coaching skills was designed *The school principal as coach*. This program is based on the following assumptions: (1) the marginal teacher exhibits no severe instructional shortcomings and is willing to improve his or her instructional performance; (2) the remediation process can be built upon a supportive relationship between the school principal and the marginal performer; (3) remediation is only effective at the early stages of a person's teaching career when his/her teaching style is still malleable (cf. Bridges, 1992); and (4) the school principal must be willing to work collegially with the marginal teacher in order to enhance his or her instructional skills. Classroom difficulties that stem from personal disorders or outside influences are not addressed in the training program. That is, the school principal should not be charged with the more personal problems of their teachers even if these affect their work at school. Rather, teachers with personal disorders or classroom problems stemming from outside influences are, in our opinion, in need of other professional counselling.
Coaching can help teachers improve their instructional effectiveness by providing them with feedback on their functioning and stimulating them to become more reflective. Coaching is closely related to the concept of clinical supervision, which nevertheless has a much longer educational tradition. Clinical supervision is defined by Sergiovanni and Starrat (1983) as: "An in-class support system designed to deliver [...] assistance directly to the teacher [...] to bring about changes in classroom operation and teacher behaviour" (p. 299). What the teacher actually does in the classroom stands central, and observational data collected in the classroom constitute the grounds for subsequent analyses and reflection. The term 'supervision' implies inspection or evaluation and often evokes negative reactions among teachers. The term 'coaching' is therefore being used more and more frequently. For Costa and Garmston (1994), 'coaching' is a form of conveyance or a metaphorical stagecoach; to coach means to convey teachers from where they are to where they want to be in a nonjudgmental process.

In the Dutch training manual for school principals, 'coaching' is defined as a form of in-class support to help teachers enhance and renew their craftsmanship on the basis of systematic reflection on their professional practice (Veenman, Visser, & Wijkamp, 1995). The coaching is directed at strengthening the instructional competence of teachers. This implies professional growth and autonomy or what is called empowerment. Teachers are assisted by coaches, and this assistance is based on pre-conference, observation, and post-conference. These phases in the coaching process were drawn from the various models of clinical supervision and coaching available in the literature (Goldhammer, 1969; Cogan, 1973; Hunter & Russell, 1990; Joyce & Showers, 1988; and Costa & Garmston, 1994).
Given the positive effects of coaching with respect to the transfer of training (Joyce & Showers, 1988), changes in teacher behaviour (Roelofs, Veenman & Raemaekers, 1994), greater teacher awareness (Costa & Garmston, 1994), increased collegiality (Sparks & Bruder, 1987), and the willingness of school principals to assist marginal teachers (Herman, 1993), it was decided to design and evaluate a coaching program for school principals.

RESEARCH QUESTIONS

In the present study, the effect of a training program on the coaching skills of Dutch elementary school principals was examined. The major research questions were: (1) Do the school principals who participated in the training program implement the target coaching skills? (2) Do the teachers coached by the school principals who participated in the training program perceive a change in the coaching skills of the school principals?

METHOD AND INSTRUMENTATION

DESIGN

Two different forms of evaluation were undertaken in the present study. First, the coaching of trained ($n = 26$) versus untrained ($n = 21$) school principals was rated by expert judges. Second, the coaching of the trained ($n = 28$) versus untrained ($n = 20$) school principals was rated by the coached teachers. Both evaluations were concerned with the degree of implementation of the desired coaching skills by the school principals. The coached teachers ($n = 28$) were also asked to estimate the effect of the coaching by the school principals on
their instructional practice. Both of the evaluation studies were set up as a field quasi-experimental pre-test post-test design.

SUBJECTS

All of the participating school principals were enrolled in an in-service training program for elementary school principalship for the protestant sector of the Dutch educational system. The outline of the program was designed by the Protestant Educational Advisory Centre (Christelijk Pedagogisch Studiecentrum) and conducted by the Christian College of Windesheim (Zwolle). This program for the training of school principals started in September 1994. Shortly thereafter, the directors of the program were asked if they were interested in incorporating the newly developed training program The school principal as coach into their in-service activities. After approval, the program on coaching skills was offered to the school principals at the end of their first year of study as one of two elective practical assignments (study load approximately 40 hours). The response of the school principals from the seven training sites in The Netherlands was greater than expected and two groups were therefore randomly formed. Group one received training in April 1995 and constituted the experimental group; group two received training in May 1995 and constituted the control group. Both the experimental and control groups consisted of school principals interested in coaching and were thus initially comparable.

THE SCALE FOR COACHING SKILLS

All of the coaching conferences were taped by the school principals. These tapes were then
coded by two expert raters using the Scale for Coaching Skills (SCS). The SCS ranges from a score of 1 for no application of the skill to a score of 5 for clear application of the skill. The SCS contained 33 variables. The original version of the SCS was developed for a study of the implementation effects of a program for the training of coaching skills with Dutch school counsellors (Veenman, 1995). Inter-observer reliability checks, estimated by analysis of variance, ranged from 0.59 to 1.00 (median 0.91). Based on the results of a principle components analysis of the SCS scores, four factors (or subscales) were formed: (1) developing autonomy (19 items, alpha = .94), (2) feedback (6 items, alpha = .91), (3) agreement on classroom observational goals (6 items, alpha = .82), and (4) businesslike attitude (2 items, alpha = .80). These four factors were found to account for 63% of the rating variance.

In order to evaluate the coaching skills of the school principals, the coached teachers used the Teacher Scale for Coaching Skills (TSCS). This scale was in part derived from the SCS used by the expert raters but also contained items concerning the use of the observational data by the school principal and the perceived effects of the coaching conference on the instructional behaviour of the coached teacher. The TSCS contained 32 variables. Based on the results of a principle components analysis of the TSCS scores, four factors (or subscales) could be distinguished: (1) perceived effects of the coaching conference on instructional behaviour (9 items, alpha = .85); (2) empathy (9 items, alpha = .78); (3) defining improvement plans (8 items, alpha = .76); and (4) encouragement of self-reflection (6 items, alpha = .77). These four factors were then found to account for 46% of the rating variance. These four TSCS subscales were used in both the pre- and post-test. In the post-test, a fifth scale was added, namely 'the use of observational data' (7 items, alpha = .74). This scale was only used in the post-test because it was assumed that the principals would only make use of
the pre-conference, classroom observation, and post-conference associated with the trained coaching model at post-test.

THE TRAINING PROGRAM

The training manual *The school principal as coach* consisted of eight sections. In section one, the principal's role in delivering quality education and the concept of instructional leadership are discussed.

In section two, the contribution of coaching to the improvement of instructional effectiveness is discussed. Information is provided on the functions of coaching and the skills needed by both coaches and teachers. Coaching is shown to be related to the improvement of individual teacher instruction. School principals are instructed to support teachers in becoming more resourceful and skilful. They are encouraged to invite teachers to reflect on the possible discrepancies between desired and actual teaching behaviour and the possible relations between teacher behaviour and student achievement. A distinction is made between two forms of coaching: *consulting* and *confronting*. Conferences initiated by the teacher represent the coaching function of consulting. These conferences are directed at strengthening the instructional competence of the teachers, at professional growth, and at empowerment particularly because the teacher expresses a willingness for further instructional improvement. Consulting is described as supplementing the teacher's own initiative for self-improvement.

Conferences initiated by the school principal represent the coaching function of confronting. This function is largely directed at the marginal teacher. In this situation, the principal wants a teacher to perform some instructional task at a satisfactory level. "Confrontation is a coaching process by which managers correct performance problems, develop commitment to continual
improvement, and maintain positive relationships with employees" (Kinlaw, 1989, p. 80).

In this same section of the training manual, the different stages in the coaching process are also described. Consulting includes the following stages: pre-conference, observation, and post-conference. Confronting includes the same stages, but the pre-conference is preceded by a confrontational conference. In the confrontational conference, the principal concretely identifies the specific performance problem and the desired improvement. This conference also prepares the marginal teacher for the process of coaching.

In section three, the characteristics of effective teaching are described. Five teaching situations are discussed: caring for students, subject matter expertise, classroom management skills, pedagogical and instructional abilities, and teaching students to learn. Some types of instructional failure are also described.

In section four, the coaching skills for the confrontational conference are discussed. Attention is devoted to such skills as providing a clear statement of the perceived performance problem, limiting resistance and negative emotions, circumscribing the problem, orienting towards the future, being attentive, providing support, reaching mutual agreement on the problem and possible causes, and agreeing on follow-up coaching.

In section five, the coaching skills for the pre-conference are discussed. Attention is devoted to such skills as trust building, problem definition, problem solving, planning alternatives, and the formulation of action plans for improvement.

In section six, the observation of teaching is discussed. 'Script taping' is considered in detail. This involves making a written record of what is said and done during an observed class session.

In section seven, the post-conference coaching skills are discussed. These include probing for teacher's feelings about the lesson, evaluating the outcomes of the action plans, discussing
the observational data (reflecting and providing feedback), developing new alternatives, and refining action plans. The school principals are advised to invite the teacher to provide feedback and suggest any refinements that might make for a more productive relationship.

In section eight, the final section of the training manual, some of the problems associated with the introducing of coaching as a means for instructional improvement are discussed. Some suggestions for the implementation of coaching are also provided.

The coaching skills for the confrontational conference, the pre-conference, and the post-conference are structured around the three stages proposed by Kinlaw (1989): (1) involvement (clarifying the purpose of the conference, developing comfort and trust); (2) development (communicating information that leads to problem definition and insight into the problem); and (3) resolution (achieving closure and planning the next steps).

The contents of the training manual formed the basis for a one-day workshop. Prior to this workshop, the manual was sent to the school principals in the treatment group with the request to study at least the sections on confrontational conference, pre-conference, observation, and post-conference. During the workshop, the school principals were trained in the skills relevant to the confrontational conference, pre-conference, observation, and post-conference. During the application exercises, the participants formed groups of three and alternated being the coach, the teacher, or the observer. After each exercise, the school principals then designed action plans for their own coaching practice. Exercises in 'script taping' were based on video fragments of lessons. The school principals rated the training manual and workshop quite favourably and indicated that they planned to apply the newly learned coaching skills in the near future.
DATA COLLECTION

Prior to training, the school principals conducted a coaching conference with one of their teachers (March 1995). The school principals were asked to conduct this conference in a manner similar to the conferences that they usually performed. The workshop for the experimental group took place in April 1995. After the workshop, the trained school principals were again asked to conduct a coaching conference with the same teachers. The post-test was administered in May 1995. After each coaching conference, the coached teachers also rated the coaching skills of the school principals. The school principals did not have access to the teacher ratings. The trained school principals from the experimental group were expected to conduct the complete coaching cycle of pre-conference, observation, and post-conference in the post-test. Of the trained school principals, all were indeed found to conduct the entire coaching cycle. Of the control school principals, all were found to conduct only one coaching conference at post-test.

The ratings of the pre- and post-conferences were averaged to produce a mean post-test score for each trained school principal. The school principal was the unit of analysis. For a more detailed description of the design, instrumentation, and data collection, see Visser and Wijkamp (1995).

RESULTS

Comparison of the trained group with the untrained group for differences prior to training revealed no significant differences. A summary of the Scale for Coaching Skills (SCS) scores from the expert raters is presented in Table 1.
The data displayed in Table 1 show training to have a marked effect on the coaching skills of the school principals. Significant differences between pre- and post-test for the trained school principals were found for the total SCS and all four subscales: developing autonomy, feedback, agreement on classroom observational goals, and businesslike attitude ($p < .01$). Two significant pre- versus post-test differences were found for the untrained school principals, namely for the subscales: feedback and businesslike attitude ($p < .05$). Significant gain-score differences between trained and untrained school principals were found for the total SCS and three subscales: developing autonomy, feedback, and agreement on classroom observational goals ($p < .01$).

A summary of the TSCS scores from the coached teachers for the trained and untrained school principals at pre- and post-test is presented in Table 2. The results in Table 2 show the trained school principals to score significantly higher for the total TSCS and three subscales (perceived effects on instructional practice, defining improvement plans, and encouragement of self-reflection) after training. The untrained school principals also scored higher at post-test for the total TSCS and two subscales (perceived effects on instructional practice and encouragement of self-reflection). In addition, one significant gain-score difference was found between the trained and untrained school principals, namely for the subscale defining improvement plans ($p \leq .01$). No differences were found between the trained and untrained principals for the use of observational data in providing feedback at post-test ($t = 1.3, p = 0.2$). It should be noted that the coached teachers rated the coaching skills of the school principals positively even at pre-test. All of the scores from the teachers, including those for the effects of coaching on their own instructional practice, were above average.
DISCUSSION

The results of the present study suggest that the training program had a positive effect on the coaching skills of school principals. The trained school principals were rated higher by the expert raters on the Scale for Coaching Skills (SCS) than the untrained school principals. Significant differences between trained and untrained school principals were found for the total SCS and three subscales: developing autonomy, feedback, and agreement on classroom observational goals.

The training program was found to improve the skills of developing autonomy and agreement on classroom observational goals in particular. Developing autonomy (or empowerment) refers to strengthening the autonomy of the teachers in order to enable them to reflect on their instructional effectiveness and formulate action plans for the improvement of their teaching. Agreement on classroom observational goals refers to the willingness of the teacher to allow the school principal to focus the observation on instructional activities in need for improvement. A significant effect was also found for the provision of feedback. This is an important skill for the post-conference. Feedback is provided to discuss the analysis of the observation and to produce a self-plan for instructional improvement. Feedback also gives the teachers the opportunity to adjust their performance through 'reflection-on-action' (Schön, 1983). The key characteristics of effective feedback are that it be timely, sufficient, concrete, specific, and limited to a small number of performance problems at a time. The trained school principals showed better feedback skills than the untrained school principals. With regard to businesslike attitude or the willingness of the coach and the teacher to focus on the purpose of the coaching conference -- namely, the development of alternatives for the improvement of instructional effectiveness, both the trained and untrained school principals showed
significant improvement at post-test. This explains the absence of significant differences between the trained and untrained groups on this subscale.

The generally positive ratings from the coached teachers with respect to the skills of the school principals show the teachers to experience coaching as something positive. The above average ratings from the coached teachers also showed them to perceive the coaching conferences as improving their instruction. The reflection on the instructional practices and framing of self-plans for improvement presumably enhance the possibilities for real changes as well. Only one significant difference between the trained and untrained school principals was found from the ratings of the coached teachers. Trained principals were better equipped to develop mutually agreed-upon plans for instructional improvement.

Although the training of the school principals was directed at the functions of consulting and confronting, the majority of the school principals (94%) conducted coaching conferences in which the function of consulting was emphasized. Because the training was part of a more general training program for school principals, it was not possible to ask the principals to conduct the coaching conferences with 'substandard' teachers. It was left to the principals themselves to choose a teacher to practice the coaching skills with, and most of the principals selected a 'standard' teacher. This is to say, that the present study was directed at the implementation effects of a program for the training of coaching skills with normally functioning teachers. Whether the training is also effective for the coaching of marginal teachers remains to be considered in future research.

In this study, the effect of a training program directed at the coaching of teachers was examined. The trained school principals were found to put a number of important and desirable coaching skills into practice. Whether these coaching skills will bring about changes in the cognitive processes and instructional behaviours of the teachers and subsequently
enhance student learning nevertheless remains to be considered in future research.

ACKNOWLEDGMENTS

The training program The school principal as coach was designed by Yvonne Visser and Nicole Wijkamp, two doctoral students under the supervision of Simon Veenman. The evaluation study was set up to determine the implementation effects of this training program, conducted by Yvonne Visser and Nicole Wijkamp and supervised by Simon Veenman. The research reported here was supported by the Protestant Educational Advisory Centre (Christelijk Pedagogisch Studiecentrum), Hoevelaken, The Netherlands.
REFERENCES


training manual for coaching teachers with problems]. Hoevelaken: Christelijk Pedagogisch Studiecentrum.

Table 1. Mean SCS scores from expert raters and results of t-tests for differences between pre- and post-test data, and differences between gain scores for trained and untrained school principals

<table>
<thead>
<tr>
<th>Scale for Coaching Skills (SCS)</th>
<th>Trained group (n = 26)</th>
<th>Untrained group (n = 21)</th>
<th>Pre-post gain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>S</td>
<td>M</td>
</tr>
<tr>
<td>SCS-total</td>
<td>2.1</td>
<td>0.5</td>
<td>3.4**</td>
</tr>
<tr>
<td>Developing autonomy</td>
<td>2.3</td>
<td>0.5</td>
<td>3.3**</td>
</tr>
<tr>
<td>Feedback</td>
<td>2.4</td>
<td>1.0</td>
<td>4.1**</td>
</tr>
<tr>
<td>Agreement on classroom observational goals</td>
<td>1.3</td>
<td>0.4</td>
<td>2.1**</td>
</tr>
<tr>
<td>Businesslike attitude</td>
<td>2.9</td>
<td>0.7</td>
<td>3.7**</td>
</tr>
</tbody>
</table>

Note: M = Mean; S = Standard deviation. Means for the ratings are based on a five-point scale: 1 = no application of the skill, 5 = clear application of the skill; * p < .05; ** p < .01
Table 2. Mean TSCS scores from coached teachers and results of *t*-tests for differences between pre- and post-test data, and differences between gain scores for trained and untrained school principals

<table>
<thead>
<tr>
<th>Teacher Scale for Coaching Skills (TSCS)</th>
<th>Trained group (n = 28)</th>
<th>Untrained group (n ≥ 20)</th>
<th>Pre-post gain</th>
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<tr>
<td></td>
<td>Pre</td>
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<tr>
<td>TSCS-total</td>
<td></td>
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<tr>
<td>Perceived effects on</td>
<td></td>
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<tr>
<td>instructional practice</td>
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<tr>
<td>Empathy</td>
<td>3.3</td>
<td>0.5</td>
<td>3.8**</td>
</tr>
<tr>
<td>Defining improvement plans</td>
<td>3.3</td>
<td>0.7</td>
<td>3.8**</td>
</tr>
<tr>
<td>Encouragement of self-reflection</td>
<td>4.0</td>
<td>0.6</td>
<td>4.1</td>
</tr>
<tr>
<td>Use of observational data</td>
<td>2.7</td>
<td>0.8</td>
<td>3.2**</td>
</tr>
</tbody>
</table>
| Note:                                 | Control group n = 14. M = Mean; S = Standard deviation. Means for the ratings are based on a five-point scale: 1 = no application of the skill, 5 = clear application of the skill; ** p < .01