Teacher Teams from a Community Perspective

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As a result of recent educational reforms in secondary education, the need for collaboration between teachers increases. Using a community perspective, the quality of collaboration between teachers in seven teacher teams was studied. Analysis of qualitative and quantitative data resulted in a description of the teams’ community degree. Despite the choice for a best practice school with existing teams, not all collaboration in the teacher teams was of high quality. Additionally, the role of perceived support and team diversity was investigated. A positive correlation between supportive leadership and quality of collaboration was found. The role of team diversity with regard to quality of collaboration showed more ambiguous results. The study provides insight in themes that are important to consider when facilitating or participating in a teacher community.

Introduction

Recently, collaboration between teachers has gained attention in the Netherlands. This is caused by educational reforms that have been introduced in secondary education and as a result of those, changing professional standards for teachers. Also, schools have received more decision-making authority and are scaling up (Imants, Sleegers, & Witziers, 1999). Teacher involvement has become an important strategy in the implementation of innovations and reforms (Crow & Pounder, 2000). As a result of this, teachers are compelled to collaborate with each other to contribute to the school organization.

Collaboration between teachers has different qualities. Based on the level of interdependence, Little (1990) distinguishes four types of collaboration. (1) Storytelling and
scanning. In this type of collaboration, teachers exchange information and tell each other stories or anecdotes, often in an informal way. Educational issues are kept at a distance and teachers work virtually autonomous. Teachers seek emotional sympathy and support (Meirink, 2007). (2) Aid and assistance. In this type of collaboration, teachers provide help and advice to colleagues when asked. Mostly this assistance is one to one because asking for help can undermine a teacher’s self-esteem. (3) Sharing. This type of collaboration involves the routine sharing of materials and method or the open exchange of ideas and opinions. (4) Joint work. This type of collaboration involves encounters among teachers that rest on shared responsibility for the work of teaching. Autonomy is shared and teaching no longer takes place behind closed doors (van Wessum, 1997). We consider joint work to be high quality collaboration.

Looking at the gains of the different collaborative types, it is suggested (Rosenholtz, Bassler, & Hoover-Dempsey, 1986; Little, 1990) that teachers in autonomous settings gain little from the expertise of colleagues. Teaching in interdependent settings where teaching is a collective enterprise, leads to teacher professional development. However, the more interdependent types of collaboration occur less frequent than the more autonomous types of collaboration. Van Wessum (1997) studied eleven subject departments distributed over three traditional secondary schools. She concluded that more autonomous forms of collaboration were found more often in schools than more interdependent forms of collaboration. It would be interesting to look at the status quo of the quality of collaboration between teachers in secondary education because of its added value for teachers and the school organization.

A number of studies have linked teacher teams with a high degree of interdependence and collective autonomy to the concept of professional community (e.g. Visscher & Witziers, 2004; Talbert & McLaughlin, 2002; Imants, Sleegers, & Witziers, 2001). In these studies, the potential role of professional community in teacher development and school improvement is discussed. In our view, communities accommodate high quality collaboration because of their members’ shared interest and shared practice. However, not much is known about the occurrence of high quality collaboration. Given the significance of collaboration for teachers in secondary education, and the notion that collaboration in teacher teams in secondary education could received more attention (van Wessum, 1997; Imants, Sleegters, & Witziers, 1999), we want to explore the status quo of collaboration within teacher teams, using concepts from community literature. The first research question we formulated is:
(1) To what degree can teacher teams in a secondary school be characterized as teacher communities?

It is known that workplace conditions influence how communities emerge and develop, how they forge commitments, build capacity, and deal with the issues of content and process. Factors such as where a community is located, the culture that surrounds it, the way it gets started, and its conditions of membership combine to impact the trajectories it takes and the challenges it faces (Lieberman & Miller, 2008). Most research focuses on school characteristics in relation to the support of communities. In this study we want to focus on the level of the individual teacher in a team. In our view, teachers’ perception of workplace characteristics plays a considerable role in community building but also team composition. The second research question we formulated is:

(2) To what extent can teacher team characteristics be related to differences in teacher teams’ community degree?

Teacher community

In this study, we use the framework of Lockhorst, Van der Pol, & Admiraal (2008; based on Wenger, 1998) to describe the quality of collaboration between teachers from a community perspective. A teacher community is ‘a group of collaborating teachers with a certain group identity, shared domain and goals, and interactional repertoire that allow them to effectively share and build knowledge’. A teacher community is defined according to three dimensions. The dimensions have been operationalized in the following way (adapted from Lockhorst et al, 2008). (1) Group identity refers to the degree in which the group makes up a social entity. (2) Interactional repertoire refers to the degree in which the group has a shared practice of interactions. (3) Shared domain refers to the degree in which the group has a shared interest. Within the framework, two perspectives are present. Community members’ community sense (do members experience the group as a community?) and community members’ community behavior (do externally visible processes and activities resemble a community?).
Within the framework, the development of a teacher community is characterized by three stages on a continuous scale. At one extremity of the scale is the beginning stage when the group is initiated and starts shaping. The processes are characterized by limited group feelings, shared patterns as well as procedures, and also limited willingness to be active in the domain. In the middle of the scale is the evolving teacher community. In this stage, the processes in the group are characterized by consciousness of the group process and development of group activities. At the other extremity of the scale is the mature stage. In this stage, the processes in the group are balanced, shared, and focused on the group. In this stage, the quality of collaboration is expected to be the highest. In this study, the three stages are used to indicate teacher teams’ community degree.

**Team characteristics**

Various studies report about characteristics of the context that play a role in community building (e.g. Little, 2007; Louis, Marks & Kruse, 1994; Talbert & McLaughlin, 1994; Newmann, Rutter, & Smith, 1989; Bryk, Camburn, & Louis, 1999; Bulkley & Hicks, 2005. We included team characteristics that were expected to correlate with teacher teams’ community degree.

**Perception of supportive leadership.** School managers are keepers of the school’s vision and goals. They stimulate and reward improved performance and contribute towards the school’s culture (Louis, Marks, & Kruse, 1994; Bryk, Camburn & Louis, 1999; Bulkley & Hicks, 2005). In order to build community, leadership should ideally be directed towards establishing common goals, respect and cooperative efforts (Newmann, Rutter, & Smith, 1989). Also, provided time and space to collaborate is essential for community building (Grossmann et al, 2001). We expect community degree to be higher when teams perceive more supportive leadership.

**Perception of support for professional development.** Schools need to support and offer professional development activities, specific to their teachers’ needs (Grodsky & Gamoran, 2007; Meirink, 2007). If these activities reinforce teachers working together and focus on teachers’ problem solving on common issues, community building can increase (Newmann, Rutter, & Smith, 1989). Teachers must all have access to and time for relevant professional development (Little, 2007; Newmann, Rutter, & Smith, 1989). We expect community degree to be higher when teams perceive more support for professional development.
Team composition. Diversity in team composition is suggested to support community building (Grossmann, Wineburg, & Woolworth, 2001). We take into account sex, education and work experience. We expect community degree to be higher when team composition is more diverse.

Method

Research design

A multiple case study method was used. Data about all 7 teams was gathered within a period of 3 months, from October until December 2008.

Context

Most of the collaboration between teachers in Dutch secondary education takes place in subject departments (van Wessum, 1997; Imants, Sleegters, & Witziers, 1999) that organize their work around departmental disciplines (Pounder, 1999). Teachers feel affiliated with their department and they are “a naturally occurring ground for teacher’s interactions and satisfactions or frustrations” (Little, 2003). The quality of collaboration is not always optimal. “Although teachers within departments share a common subject matter, depend on each other for obtaining material and resources and meet occasionally within their departments, they usually do not share the same students, nor do they have a setting in which they are encouraged to cooperate. As a result, within departments collaboration between teachers is not well developed” (Imants, Sleegters, Witziers, 2001 p 295).

The last ten years attention has increased for interdisciplinary teacher teams as an alternative to subject departments (Kruse & Louis, 1997; Crow & Pounder, 2000; Imants, Sleegters, Witziers, 2001; Bullock, Park, Snow, & Rodriguez, 2002; Meirink, 2007). Interdisciplinary teams are organized around students’ school careers (Imants, Sleegters, & Witziers, 2001). Because of the interdependent structure of interdisciplinary teams, we expect the collaboration in these teams to be of high quality. With regard to our first research question, we chose a best-practice school to participate in this study. In other words, a school with an interdisciplinary team structure because here we expected to find examples of quality collaboration. The school scored also reasonably high on perception of collaborative culture.
(scale from Gijsel, 2001). Participating teams rated the extent to which teachers experience professional collaboration that extends the level of exchanging information and offers opportunities to learn from each other with 3.8 on a 5-point scale.

The school has been established in 2002 and is situated in a large city in the Netherlands. The school is innovative because of its involvement in a large scale reform (Geijsel, van den Berg, & Sleegters, 1999) which is aimed at thematic work. Thematic work is an integration of disciplinary subjects as a way of planning and delivering the curriculum. The school is engaged in a reform which concerns the development and implementation of a procedure for thematic work. In the school year of 2007/2008 the school had approximately 70 teachers and 700 students. The average age of teachers in the school is 38 and the average work experience of teachers is 8.8 years. A majority of teachers works part time.

To answer our second research question, we chose all teams from the same school to participate. By selecting multiple teams from the best practice school, we were able to investigate the role of team characteristics. The seven interdisciplinary teacher teams work highly self-directive and are responsible for a maximum of 100 students from multiple grades. Each team operates in its own learning domain (an open, multifunctional space where students work mainly in groups) which includes one instruction room. Consistent with the school’s philosophy that teachers need to be present and accessible for colleagues and others (e.g. parents), teams have their own workspaces. All teams meet formally twice a week and consist of 8 to 14 team members. On Tuesdays teams hold a meeting in which they discuss pupils and the organization of the teaching. This team meeting is chaired by a team leader. On Thursdays teams come together to develop lesson material together. These meetings are chaired by an ‘education architect’, a member of the team which is officially trained in developing lesson material. Team members meet informally during breaks and in-between lesson hours.
Instruments

**Teacher community degree**

Two instruments have been used to measure community sense and community behavior with regard to the three dimensions Group identity (GI), Interactional repertoire (IR) and Shared domain (SD). **Community sense** was measured with a questionnaire (based on Burroughs & Eby, 1998) which was administered to all teachers (response rate of 85%).

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Number of items</th>
<th>Cronbach’s α</th>
<th>Example item*</th>
</tr>
</thead>
<tbody>
<tr>
<td>GI</td>
<td>30</td>
<td>.94</td>
<td>I consider myself as someone who fits well with the group</td>
</tr>
<tr>
<td>IR</td>
<td>11</td>
<td>.76</td>
<td>In this group we discuss how to communicate with each other</td>
</tr>
<tr>
<td>SD</td>
<td>11</td>
<td>.89</td>
<td>We develop joint ideas in this group</td>
</tr>
</tbody>
</table>

* Original items in Dutch

**Community behavior** was measured using an observation instrument. The data source consisted of video recordings of team meetings. For each team, video recordings of two formal meetings were made, one of regular Tuesday team meetings and one of Thursday meetings in which the teams develop lesson materials. From each video recording, two fragments of ten minutes were selected. Selection criteria were the following. (1) There had to be interaction between two or more members of the team. (2) The fragment was not selected from the start or end of the meeting because these parts were highly regulated by the team leader. (3) The fragment was a round total (e.g. the discussion of one agenda item). The selected video fragments were scored using a scoring form. On this form, each dimension contains indicators with examples of observable team behaviour. Coders were trained in using the observation scheme. The reliability of the observation procedure was acceptable (for an extensive description see Lockhorst & Admiraal, 2009).

Scoring forms were scored the following way. (1) The coder watched the whole fragment. (2) The coder watched the fragment in small chunks and wrote down all behaviour (verbal and non-verbal) with each indicator. (3) The coder evaluated if all indicators had a description of relevant behaviour. If not, fragment was watched again in chunks while
focussing on specific indicators to reach saturation. (4) On the basis of the description of the behaviour for each indicator, the coder decided what stage of community this description indicated. Thereupon, each indicator received a score of 1 (beginning), 2 (evolving) or 3 (mature). The dimension score consists of the average of indicator scores. For each team, this resulted in a qualitative description and a mean score for each of the dimensions group identity, interactional repertoire and shared domain.

Table 2
Examples of observable behaviour (Lockhorst & Admiraal, 2009)

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Indicator</th>
<th>Observable behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>GI</td>
<td>Identification</td>
<td>Reference to the group (I, me, mine versus we, us and our).</td>
</tr>
<tr>
<td>IR</td>
<td>Interactional</td>
<td>No civil discussion versus (reference to) ground rules of civil discussion:</td>
</tr>
<tr>
<td></td>
<td>norms</td>
<td>listening, no interruption, constructive criticism.</td>
</tr>
<tr>
<td>SD</td>
<td>Common ground in concept</td>
<td>Meaning of central topics is not discussed and understood versus meaning of central concepts is discussed and negotiated and understood (mutual understanding).</td>
</tr>
</tbody>
</table>

Team characteristics

Team characteristics were measured using a questionnaire (scales from Geijsel, 2001). The questionnaire was administered to all teachers (response rate of 89%).

Table 3
Questionnaire team characteristics

<table>
<thead>
<tr>
<th>Scale</th>
<th>Number of items</th>
<th>Cronbach’s α</th>
<th>Example items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive leadership</td>
<td>8</td>
<td>.87</td>
<td>School management hardly discusses matters that go well at school.</td>
</tr>
<tr>
<td>Support of professional development</td>
<td>10</td>
<td>.80</td>
<td>School management makes clear plans with regard to the professional development of teachers.</td>
</tr>
</tbody>
</table>
Analysis

**Teacher community degree**

With respect to community sense as well as community behaviour, position of the teams on each of the three dimensions was determined by calculating mean scores. The 5-point scale of the questionnaire and the 3-point scale of the scoring form were both transformed into scales ranging from 0 to 1. Teams with a mean score between 0 - .33 were placed at the beginning stage of the dimension, teams with a mean score between .33 and .66 were placed at the evolving stage of the dimension and teams with a mean score between .66 and 1.00 were placed at the mature stage of the dimension.

**Team characteristics**

Perception of supportive leadership and Perception of support for professional development were determined by calculating mean scores. With regard to Team composition, heterogeneity of sex was presented by deviation from 50% males. Heterogeneity of education was presented by deviation from 50% university schooling. Heterogeneity of work experience was presented by the standard deviation of the years of work experience.

Correlation between team characteristics and teacher community degree was determined by calculating spearman’s rank correlation coefficient. The following guideline for effect size was used: small effect size, $\rho = .1 - .23$, medium effect size, $\rho = .24 - .36$, large effect size, $\rho = .37$ or larger.

**Results**

**Teacher community degree**

Table four below shows the position of each of the seven teams on the dimension scales Group identity, Interactional repertoire and Shared domain. Noticeable is the difference between teams’ community sense and community behaviour. Also, teams’ community sense is positioned only in the evolving and mature community stage. Community behaviour, however, is positioned in all three community stages.
Table 4
Teams’ position on the dimension scales

Team 1 (10 team members)
Community sense: evolving stage
Community behaviour: beginning stage

Team 2 (11 team members)
Community sense: mature stage
Community behaviour: evolving stage

Team 3 (11 team members)
Community sense: evolving stage
Community behaviour: evolving stage

Team 4 (9 team members)
Community sense: mature stage
Community behaviour: mature stage

Team 5 (9 team members)
Community sense: evolving stage
Community behaviour: beginning stage
The positioning of the teams on the dimension scales for community sense and community behavior leads to a typification of a beginning (teams 1 and 5), evolving (teams 2, 3 and 6) and mature teacher community (teams 4 and 7). The three teacher community prototypes will be described below.

Prototype of the beginning teacher community

The teachers in the team are not one unity. There are two subgroups based on work experience at school. There is ‘us’ the experienced teachers and ‘them’ the new teachers. On the contrary, teachers feel there is not so much a clique within the team. Also, teachers feel they can count on their colleagues when they need advice. During discussions, not every teacher is listened to and teachers do not always let each other finish their sentence. Only some teachers feel free to share difficulties they encounter during lessons. However, teachers feel free to share their personal shortcomings with colleagues. Often, colleagues immediately provide a solution ‘Why don’t you just do this and this, it works for me’. Most teachers keep their thoughts for themselves. Most of the time, discussions are between a team member and the team leader. Occasionally, only the team leader involves a quit teacher by asking his or her opinion. Teachers feel that the team does not often discuss how to communicate with each other. Team members have shared but also divergent goals. What is felt important and relevant for the team by one teacher is not always recognized by the other teachers. Teachers feel that there is some sense of shared mission and shared goal.
Prototype of the evolving teacher community

In this team there is a more informal atmosphere. Teachers laugh and make jokes occasionally. Teachers feel rather proud to be part of the team. Also, they feel there is quite some team spirit within the team. Some team members’ contribution is taken more seriously than others’ but overall the teachers in the team listen to each other and let each other finish. Teachers feel free to take on specific roles. During discussions, teachers ask each other informative and critical questions but often hold on to their own ideas. In contrast to the beginning team, more team members are mutually involved in discussions. Teachers feel that the group deals with conflict in a respectful way. The majority of teachers feel safe to share difficulties they encounter in the classroom. The team’s goals are shared by most of the teachers. Teachers share ideas, experiences and lesson materials with each other. However, this information is not always used to improve processes or products. Teachers feel that they benefit quite a lot from being part of the team with regard to their daily work.

Prototype of the mature teacher community

This team acts more as one group. There are no noticeable subgroups. Teachers feel that they play a role in the decision making of the team. A difference with the beginning and evolving team is that during discussions, teachers provide arguments to back up their opinions or decisions. They also use each others’ ideas in a constructive way to come to new ideas. It’s less about convincing and more about constructive building. Teachers feel that their colleagues show understanding with regard to their opinion and way of working. When necessary, teachers take on small tasks spontaneously. Teachers feel they do each other favours. There is a small difference between quiet and verbally more dominant teachers and almost all teachers participate in discussions. To quite some extent, teachers feel that they can show their vulnerability to their colleagues. The team has clearly shared goals and team members also support these goals. Teachers are actively involved in finding solutions or improvements in order to reach team goals. The atmosphere is informal, often there is laughter and jokes. Teachers feel there is a lot of team spirit, in contrary to the beginning type.

Team characteristics and teacher community degree

A high positive correlation was found between perception of supportive leadership and degree of community sense on the dimensions Interactional repertoire and Shared domain. Also, a high correlation was found between perception of support for professional
development and degree of community sense on the dimensions Group identity and Interactional repertoire. However, the differences between team scores on this variable were negligible.

A high positive correlation was found between heterogeneity of sex and degree of community sense and behaviour on all dimensions. In addition, a high positive correlation was found between heterogeneity of education and degree of community sense on the dimensions Group identity and Shared domain as well as degree of community behaviour on all dimensions. A high negative correlation was found between heterogeneity of work experience and degree of community sense and behaviour on all dimensions.

**Conclusion and discussion**

In this study we focused on the quality of collaboration between teachers in secondary education. We also wanted to find out more about the possible role of team characteristics in relation with teacher teams’ community degree. Our first research question aimed to examine to what degree existing teacher teams could be characterized as teacher communities. In the best practice school that participated, we found communities in a variety of degrees. Beginning, evolving as well as mature communities were present in the school. This is an interesting outcome. On the basis of our choice of a best practice school and the fact that existing teams participated, we did not expect to find teams with a low community degree. The teams that participated did not emerge recently, they have been working together for a number of years. The amount of member changes in the teams did also not play a role. It turns out that existing teams can also be ‘beginning communities’ even if they are not beginning in terms of time.

We also examined the role of team characteristics and group composition. A higher perception of supportive leadership goes together with a higher degree of community sense and community behaviour on two of the three dimensions. The role of group composition with regard to community degree showed more ambiguous results. Heterogeneity in terms of sex and education go together with higher degrees of community sense and behaviour on almost all dimensions. However, an opposite situation can be found with regard to heterogeneity in terms of work experience. Heterogeneity of work experience goes together with lower degrees of community sense and behaviour on all dimensions. This picture
matches the lack of consensus that exists in literature about team composition. Grossmann et al. (2001) emphasize the benefits and downsides of a diverse community by describing the tension that exists between diversity and similarity. On the one hand, diversity offers different perspectives and substance for discussion, and a variety of expertise. Possible drawbacks are lack of consensus and shared interests, and arising of subgroups. In addition, one has to bear in mind that the teams in this study are already diverse with regard to subject matter expertise: each team exists of teachers who teach different subjects.

Noticeable is the difference between sense of community and observed community behavior of the different teacher community types. In the beginning community type, sense of community was in the evolving stage. Community behavior was in the beginning stage. A possible explanation is that although the teams are labeled as beginning communities, the majority of team members are not new to each other. Team members have known each other for a number of years and see each other informally on a regular basis. Therefore, their sense of community is relatively high. In the mature community type, the situation is the other way around. Sense of community was in the evolving stage and community behavior was in the mature stage. A possible explanation could be that the mature teams are at a stage where they have the courage to reflect on oneself and other team members in a more critical manner. They feel safe to make higher demands on the team’s functioning. Because of team members’ increased critical attitude towards the team, their sense of community is relatively low.

To position the teams on the three dimension scales, we used mean score as an operationalization of collaboration quality. In the near future this operationalization needs more attention because a mean score provides rather limited information about a group’s sense of community. This information would become more detailed if diversity within a group would be included (standard deviation). An alternative would be to work with minimum scores, where the lowest individual score of a team member is leading. One could argue that the collaboration quality cannot be any higher than the score of the most ‘negative’ team member. This discussion about a proper operationalisation is still in development.

The results of this study are of interest for several parties. For team members and the team leader the description of the teams provides insight into the areas which have been developed satisfactory and which areas need further development. Teams can prioritize what elements of collaboration they want to work on. Of course, the three dimensions are
interrelated. With regard to school management, the results help to gain more insight into ways the school management can promote community building. The study shows what areas management support could focus on. Even though a teacher team has been together for a number of years, it does not automatically make them a mature community. The team members and school management need to work on community building continuously, not only at the beginning of the team formation. In communication and support, school management needs to take into account that sense can differ from observable behavior and reckon with these two perspectives.

The current overview of the quality of collaboration within teacher teams suggests there is room for further development. Now that we gained more insight into what the current quality of collaboration is, a follow-up study could focus on how to stimulate quality collaboration in teacher teams. Continuing building upon the community perspective that was used, the first step would be to formulate principles for stimulating teacher community building. The second step would be to implement, test and evaluate these principles in multiple rounds with several teacher teams to evaluate the effectiveness of these principles. This will be the focus of our second and third study. Additionally, further research is needed to investigate the role of additional team characteristics such as the quality and quantity of the informal interaction and the pattern of interpersonal relations between team members in terms of proximity and influence (based on Wubbels, Créton, Brekelmans, & Hooymayers, 1987).
REFERENCE LIST


AUTHOR NOTE

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