21st century leadership skills for learning networks

Floor Basten
Arnoud Evers
Femke Geijsel
Marjan Vermeulen
Purpose

**Ultimate goal:** to prepare pupils for a life in a society that requires 21st century skills and actions

**Immediate focus:** teachers and principals develop 21st century skills in the practice of their work → together with researchers principals co-create tools to support teacher learning

2013-2014: learning networks to generate/facilitate teacher learning

2015-2018: project ‘21st century leadership skills’
21st century leadership skills

• three-year project
• 2 groups of schools, “Oak tree” and “Pine tree”, 2 board chairmen
• 13 elementary school principals
• 4 researchers

Investigation of how learning networks of teachers can be supported by 21st century leadership skills
Assumptions

- Increasing demand for 21st century skills in current and nearby-future society (communication skills, social and cultural skills, creativity, critical thinking, problem solving, media wisdom, self-regulation, collaboration)

- This demand can only be met if schools develop into/as learning organizations with collective learning processes and collective learning outcomes, in which pupils, teachers and principals develop their 21st century skills

- All have to learn in a 21st century way:
  - both individually and collectively
  - as teachers, principals and board chairmen
Research questions

What does it take to change routines of both teaching and leadership towards 21st century skills?

How can principals be equipped to lead a 21st century school that works on school development and quality care according to the principles of distributed and demand-driven network learning?

• Which dilemmas and issues do principals face when teachers learn in networks? (2016)
• Which competences and repertoire for action do principals need to lead their school as a learning network organization? (2017)
• What does an approach look like that supports principals to learn to lead in a 21st century way? (2018)
Theoretical underpinnings

Network learning

- Networked collaboration on research questions increases skills and results is more effective for school development than a hierarchical approach in which school development is directed by management alone (Hallinger & Heck, 2010; Kessels, 2012)
- Learning in networks contributes to teachers’ development; researching demand-driven practical issues together increases the capacity of the school as learning community (Copland, 2013)
- Network learning is usually about matters that teachers encounter directly in their work (De Laat, 2012). These issues are often complex. Dealing better with this complexity is a strength of network learning (Hodgson, De Laat, McDonnel, & Ryberg, 2014)
Theoretical underpinnings

Distributed leadership

- Organizational forms that reinforce the learning capacities of the organization often have a decentral network structure (Hodkinson & Hodkinson, 2005)
- Roles, tasks and responsibilities of both teachers and principals shift as a results of the creation of professional space and how it is used (Vaessen, Van den Beemt, & De Laat, 2014), and demands an effort of all participants in which collaboration is organized more horizontally (Richter & Wagner, 2014)
- Effective school leaders engage other parties that are involved in their leadership, such as parents and teachers. Leadership then becomes team work, in which school leaders together with teachers demonstrate an inquiring attitude towards the functioning of their school (Knapp, Copland, & Swinnerton, 2006)
Theoretical underpinnings

Transformative leadership

- ‘Leaders’ and ‘followers’ often experience giving and taking professional space differently (Duif e.a., 2013). Insight into how distributed leadership works falls short and what is needed is knowledge about the leadership practices and the processes involved in addition to the leadership role.
- Since years, transformative leadership has been the centre of attention when it comes to innovation and inspiring others (Thoonen e.a., 2012).
- Dimensions of transformative leadership contribute to different professional learning activities of teachers (Geijsel e.a., 2009).
Methodology

• principals’ individual case studies supported by individual coaching on putting theory into practice
• collaborative learning sessions of all participants: inputs from scientific and researchers’ experience in network learning, distributed and transformative leadership
• emerging theory development → sensitizing concepts (‘grounded theory’), bricolage
• pretest-posttest survey
Data collection

1. Interviews with principals about the dilemmas they experience (Vaessen et al., 2016)

2. Survey transformative and distributed leadership, network learning and their meaning for the practice of teaching:
   - Leadership development is recognized
   - Network learning is recognized
   - Both have little to none influence on lesson improvement

3. Interviews with principals about development of competences
Data interviews round 1: dilemmas

• Who coordinates the networks?
• Who defines their parameters?
• What are the liberties of the participating teachers?
• How important are (progress) reports?
• How much management is required of me?
• Is the space given experienced and used as it was meant to?

“... it doesn’t come about by itself ...”
Data interviews round 2: competences

Questions:
• How do principals, given their experiences in this project and the practice they had in trying them out in their work, make sense of the theoretical concepts (sensitizing concepts)?
• What do they recognize of these concepts in their schools and in how teachers work together and teach?

Interview topics:
• wishes/future perspectives regarding 21st century skills/education
• leadership
• network learning
• support in developing leadership
Data interviews round 2: competences

Coding: we used the theoretical concepts form our underpinnings and added new concepts that emerged in discussions between researchers who tried to understand the principals’ issues:

• complexity/emergent learning
• dialogue: internal/external/individual/collective
• strategic/tactic decision making
• single/double/triple loop learning
• learning/managerial/well-being terms
### Example of the code table

<table>
<thead>
<tr>
<th>Fragment</th>
<th>schoolplanning individual</th>
<th>schoolplanning collegial</th>
<th>interve dialog individual</th>
<th>interve dialog collegial</th>
<th>externe dialog individual</th>
<th>externe dialog collegial</th>
<th>open report</th>
<th>communiceren</th>
<th>kritisch denken</th>
<th>problemoplossend denken</th>
<th>medewerkerdom</th>
<th>zelfregulerend</th>
<th>samenvoeren</th>
<th>strategisch</th>
<th>tactisch</th>
<th>single loop</th>
<th>double bop</th>
<th>triple loop</th>
<th>leentaken</th>
<th>stuurwerk</th>
<th>werkbelevindend</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=73</td>
<td>12</td>
<td>50</td>
<td>4</td>
<td>27</td>
<td>10</td>
<td>14</td>
<td>6</td>
<td>22</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>20</td>
<td>1</td>
<td>10</td>
<td>16</td>
<td>10</td>
<td>48</td>
<td>32</td>
<td>8</td>
<td>4</td>
<td>31</td>
</tr>
<tr>
<td>N=67</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>7</td>
<td>14</td>
<td>4</td>
<td>8</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>13</td>
<td>3</td>
<td>0</td>
<td>17</td>
<td>5</td>
<td>11</td>
<td>17</td>
<td>16</td>
<td>21</td>
<td>13</td>
<td>32</td>
</tr>
<tr>
<td>N=60</td>
<td>34</td>
<td>10</td>
<td>9</td>
<td>24</td>
<td>13</td>
<td>8</td>
<td>2</td>
<td>26</td>
<td>0</td>
<td>5</td>
<td>27</td>
<td>2</td>
<td>24</td>
<td>29</td>
<td>11</td>
<td>32</td>
<td>11</td>
<td>25</td>
<td>6</td>
<td>42</td>
<td>31</td>
</tr>
<tr>
<td>N=48</td>
<td>18</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>2</td>
<td>6</td>
<td>8</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>20</td>
<td>7</td>
<td>4</td>
<td>26</td>
<td>18</td>
</tr>
<tr>
<td>N=47</td>
<td>7</td>
<td>12</td>
<td>0</td>
<td>12</td>
<td>9</td>
<td>3</td>
<td>3</td>
<td>11</td>
<td>0</td>
<td>9</td>
<td>9</td>
<td>1</td>
<td>11</td>
<td>8</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>10</td>
<td>1</td>
<td>36</td>
<td>19</td>
</tr>
<tr>
<td>N=44</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>10</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>7</td>
<td>10</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>12</td>
<td>8</td>
<td>5</td>
<td>0</td>
<td>30</td>
<td>8</td>
</tr>
<tr>
<td>N=61</td>
<td>8</td>
<td>15</td>
<td>2</td>
<td>13</td>
<td>12</td>
<td>0</td>
<td>9</td>
<td>11</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>8</td>
<td>0</td>
<td>18</td>
<td>7</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>8</td>
<td>0</td>
<td>37</td>
</tr>
<tr>
<td>N=49</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>29</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>4</td>
<td>7</td>
<td>13</td>
<td>5</td>
<td>11</td>
<td>0</td>
<td>34</td>
<td>21</td>
</tr>
<tr>
<td>N=44</td>
<td>7</td>
<td>6</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>14</td>
<td>4</td>
<td>5</td>
<td>14</td>
<td>10</td>
<td>10</td>
<td>0</td>
<td>25</td>
<td>18</td>
</tr>
<tr>
<td>N=59</td>
<td>28</td>
<td>15</td>
<td>4</td>
<td>27</td>
<td>12</td>
<td>2</td>
<td>10</td>
<td>26</td>
<td>0</td>
<td>1</td>
<td>11</td>
<td>18</td>
<td>2</td>
<td>15</td>
<td>17</td>
<td>12</td>
<td>37</td>
<td>22</td>
<td>26</td>
<td>14</td>
<td>44</td>
</tr>
<tr>
<td>N=48</td>
<td>5</td>
<td>23</td>
<td>1</td>
<td>12</td>
<td>6</td>
<td>1</td>
<td>9</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>9</td>
<td>1</td>
<td>10</td>
<td>2</td>
<td>10</td>
<td>23</td>
<td>15</td>
<td>14</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>N=58</td>
<td>25</td>
<td>10</td>
<td>1</td>
<td>12</td>
<td>11</td>
<td>2</td>
<td>7</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>13</td>
<td>4</td>
<td>22</td>
<td>9</td>
<td>6</td>
<td>21</td>
<td>14</td>
<td>10</td>
<td>0</td>
<td>23</td>
</tr>
<tr>
<td>N=79</td>
<td>15</td>
<td>55</td>
<td>1</td>
<td>45</td>
<td>7</td>
<td>8</td>
<td>6</td>
<td>10</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>21</td>
<td>3</td>
<td>16</td>
<td>31</td>
<td>26</td>
<td>48</td>
<td>33</td>
<td>7</td>
<td>2</td>
<td>16</td>
</tr>
</tbody>
</table>

**Legend:**
- ‘N = X’: total amount of utterances by the respondent
- The cells contain the total amount of utterances by a respondent on a given code
- The yellow row contains the total scores per (sub) code
- The pink row contains the averages per (sub) code
- Pink cells mean ‘more than average’
- Blue cells mean ‘less than average’
Summary of results interview round 2

Four principals were in general more outspoken than their colleagues. They had in common more statements about internal collective dialogue, 21st century learning, and well-being, but also differed in a meaningful way:

• Two framed their school as a collective, mentioned single loop learning most often, and used more managerial terms
• Two framed their teachers as individuals, mentioned double and triple loop learning most often, and used more learning terms
Summary of results interview round 2

Also, most principals said they desired support in how to
1. communicate about learning with their teachers and
2. ask questions that provoke critical thinking, in-depth learning and an inquiring attitude
Summary of results interview round 2

Two questions needed to be addressed in the remainder of the project:

1. might the capacity to find words and create language about collective learning processes and progress be an essential part of 21\(^{st}\) century leadership skills?

2. might principals’ shown willingness for in-depth and joint learning also be part of the clue of how to develop 21\(^{st}\) century education?
Plot twist

Collaborative learning sessions were redirected to concepts about

- biases
- communication and language

Outcome: dissatisfied principals who felt they were not helped with their main concerns, i.e. how to (not?) manage the learning networks
Plot twist

Network learning (starting definition)

Professional learning in which social relations are being created, used and renewed to build connections between the learner and others

REMEMBER: 2013-2014: learning networks to generate/facilitate teacher learning → a structural innovation to support teacher-led networks → principals’ leading questions were ‘how to manage’-driven
Plot twist

Investigation into the past-to-present context of the project

In Oak Tree learning networks were a structural innovation: that absorbed the full budget for professional and school development for which the principals were accountable, but the principals themselves had no tools for how to get their results, i.e. school development by teachers who displayed 21st century skills AND they expected the project, as a prolongation of the structural innovation, to equip them with these tools.

No wonder they were starting to get nervous... Moreover, they felt ‘network learning’ had had its positive effects, but had become too institutionalized (a plain format) to live up to its promises of a flexible and demand-driven way to organize learning.
Plot twist

Investigation into the past-to-present context of the project

- The Pine Tree board chairman had a ‘revelation/critical incident’ and started to ask open questions to the school principals, leading to decentralization and increased shared autonomy at school principal level

- Pine Tree’s aim in project participation was the opportunity for collaborative learning with Oak Tree, but that appeared not to happen due to delimited autonomy of Oak Tree principals

- As a result, the project meetings and efforts did not match the expectations, while at the same time the project goals in terms of distributed leadership were actually already achieved (but did not gain attention in the project)

No wonder they lost interest in the project and in Oak Tree
Plot twist

Investigation into the past-to-present context of the project

The keyword that summed up principal’ expectations:
How can principals be equipped to lead a 21st century school that works on school development and quality care according to the principles of distributed and demand-driven network learning?

The keyword that summed up researchers’ expectations:
Immediate focus: teachers and principals develop 21st century skills in the practice of their work → together with researchers principals co-create tools to support teacher learning
Plot twist

Investigation into the past-to-present context of the project

Group interviews with the principals suggested that the question

- Which competences and repertoire for action do principals need to lead their school as a learning network organization?

had an important omission: principals not only had limited vocabulary to talk about research, inquiry, learning, development et cetera, they also had limited knowledge about these concepts and their inner richness and paradigmatic diversities → they do not only need competences and repertoire for action, they also need a body of knowledge
Plot twist

Future of the project

• What does an approach look like that supports principals to learn to lead in a 21st century way?

This approach is not as theory-driven as we had started it, but should be far more a truly transdisciplinary collaboration in which principals and researchers develop a new language and conceptual frame → principals must not imitate the outer behaviours of researchers, but understand their inner logics so that they can use them to enrich their own repertoire.
Plot twist

Future of the project

- All have to learn in a 21\textsuperscript{st} century way:
  - both individually and collectively
  - as teachers, principals and board chairmen

→

- We all have to learn in a 21\textsuperscript{st} century way:
  - both individually and collectively
  - as teachers, principals and board chairmen, \textit{AND} researchers
Plot twist

Future of the project

Flipping the framework: it is not school leadership that drives teacher development nor is it theory that drives school leadership → it is teacher development that pushes forward school leadership which in turn pushes forward theory development …?
We thank you for your attention

Questions?

More information via
F.Basten@nso-cna.nl
F.Geijsel@nso-cna.nl