References


References


meeting of the American Educational Research Association in Chicago, IL.


### Appendix A: Interview outline

<table>
<thead>
<tr>
<th>Interview questions</th>
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<tr>
<td>Purpose of teaching (Hodson, 1991)</td>
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<td>Science curriculum</td>
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<tr>
<td>Instructional strategies</td>
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<tr>
<td>Students’ understanding</td>
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<tr>
<td>Goals and objectives</td>
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<td>Assessment</td>
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## Appendix B: Spreadsheet with an overview of data of the 24 participating science teachers

<table>
<thead>
<tr>
<th>Teacher</th>
<th>years of experience</th>
<th>class</th>
<th>students</th>
<th>Topic</th>
<th>Concerns</th>
<th>Orientations of science teaching (purposes and goals)</th>
<th>Lesson plans</th>
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<tr>
<td>Ada</td>
<td>1</td>
<td>10th</td>
<td>2 classes of 18 each</td>
<td>community ecology</td>
<td>low tests scores</td>
<td>content driven/didactic/activity-driven</td>
<td>confirmation</td>
</tr>
<tr>
<td>Ali</td>
<td>11</td>
<td>4th</td>
<td>11 students</td>
<td>ecosystems</td>
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<td>confirmation</td>
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<tr>
<td>Ben</td>
<td>12</td>
<td>5th</td>
<td>19 students</td>
<td>general ecology</td>
<td>lack of any hands-on activity</td>
<td>content driven hands-on/didactic</td>
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<tr>
<td>Dan</td>
<td>16</td>
<td>13th</td>
<td>2 classes (20 and 25)</td>
<td>bio fuels</td>
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<td>Don</td>
<td>31</td>
<td>8th</td>
<td>25 students</td>
<td>chemical equations</td>
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<td>June</td>
<td>16</td>
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<td>17 students</td>
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<td>Kim</td>
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<td>24 students</td>
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<td>confirmation</td>
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<td>structured</td>
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<td>skills driven/activity driven</td>
<td>structured</td>
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<td>Name</td>
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<td>Grade</td>
<td>Students</td>
<td>Subject</td>
<td>Problem Area</td>
<td>Model</td>
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<td>Deon</td>
<td>15</td>
<td>4th</td>
<td>7 students</td>
<td>ecology</td>
<td>low test scores and lack of inquiry experience</td>
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<tr>
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<td>skills driven/activity-driven</td>
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<td>Bertha</td>
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<td>5th</td>
<td>24 students</td>
<td>ecosystems</td>
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<td>8th</td>
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<td>Christy</td>
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<td>Judy</td>
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</table>
Curriculum Vitae

Dirk Wongsopawiro was born in Paramaribo, Suriname on November 8th, 1971. He attended the Ewald P. Meyer Lyceum, secondary school as well as the Instituut voor de Opleiding van Leraren (Advanced Teacher Training Institute), in Paramaribo, where he received his teaching degree in 1994. He worked as a biology teacher for several years before he started his master study in environmental sciences at the Wageningen University in 1999. After his graduation in 2001, he worked as a science teacher and researcher for the University of Suriname. In 2004 he started his PhD project at the school of education of the Southern University in Carbondale, IL, USA. In that year, he became interested in teachers’ pedagogical content knowledge (PCK), which caused him to shift his research to that topic. Working for the Regional Office of Education in Mount Vernon as an external evaluator for several years, he collaborated with ICLON, University of Leiden to supervise him in his thesis overseas. His research focused on the pedagogical content knowledge of science teachers from secondary education to improve the understanding of how these teachers use and develop their PCK while participating in The Mathematics and Science Partnership Program, professional development program for teachers. During his PhD project he took master classes on teaching and teacher education, curriculum and instructional development, and quantitative and qualitative data analyses. He presented some of his research at the annual conference of the Netherlands Education Research Association (NERA).

Currently, Dirk works as a teacher educator and researcher for both the teacher college and the graduate school of the university of Suriname. His research interests are pedagogical content knowledge, action research, and science education.
Dankwoord

Aan het eind van dit proefschrift maak ik graag van de gelegenheid gebruik om degenen te bedanken die hebben bijgedragen aan de totstandkoming van dit proefschrift. Er zijn veel mensen die mij hebben ondersteund tijdens mijn onderzoek en die ik wil bedanken. Ik kan helaas niet een ieder bij naam noemen, maar wil graag enkele mensen hier persoonlijk dankzeggen.


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BEDANKT!
Leiden University Graduate School of Teaching

PhD dissertation series


