

Responsive Teaching: A Framework for Inviting Success with Students who “Fly Below the Radar” in Middle School Classrooms

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By focusing on one student, this case study illustrated ways that successful teachers invited success and may help other teachers create connections with students. This study chronicled one student’s responses to her teachers’ efforts to engage her during a teaching activity. Data from interviews, observations, and work samples showed how the connections she made with teachers, classmates, and information shaped her understanding on content. During this activity, Mariah developed personal connections with concepts which helped her understand ideas at a deeper level. Teachers encouraged these connections by differentiating instruction in a personal way as they identified Mariah’s learning strengths, tapped her interests, and extended her thoughts.

Good teachers have always known how important it is to establish positive working relationships with their students. In recent years, researchers have provided a deeper understanding of the essential dynamics of supportive classroom interactions

Many of these studies have focused on what successful teachers do to create nurturing classroom climates (Strahan, Smith, McElrath, & Toole, 2001; Strahan & Layell, 2006; Strahan, Cope, Hundley, & Faircloth, 2005). Research has shown that reluctant students make academic progress when they experience responsive teaching. Case studies have documented the importance of “responsive teaching” characterized by ongoing personal support, candid feedback, and dialogue regarding academic and personal choices (Strahan, 2008, p. 8). As described further in the methodology section, to analyze the dynamics of teacher responsiveness from a student’s point of view, we crafted this case study with a seventh grade student as she responded to instructional activities during a month-long unit of integrated instruction. By observing Mariah during lessons, talking with her

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about instructional activities, interviewing her teachers, and analyzing samples of her work, this case study offers a detailed description of how she responded to her teachers' efforts to teach responsively.

Perspectives

A growing body of research has documented the power of relationships in nurturing academic achievement. Furrer and Skinner (2003) analyzed students' perceptions of their relationships with others as factors in engagement and learning. Data from 641 students showed that "children's sense of relatedness plays an important role in their academic motivation and performance" (p. 158). Students who reported the most positive levels of support from teachers demonstrated higher levels of effort, attention, and persistence. Researchers concluded "feelings of belonging may have an energetic function, awakening enthusiasm, interest, and willingness to participate in academic activities" (p. 158). Hammerness, Darling-Hammond, and Bransford (2005) found that responsive teaching results from a strong focus on students as individuals: "Descriptions of classroom practice suggest that some teachers eventually develop a strong focus on student welfare and learning that drives their teaching decisions and self-improvement efforts" (p. 379). In a related study, Darling-Hammond and Bransford (2005) concluded that this level of expertise is the essential quality that distinguishes accomplished teaching from the ordinary.

Studies of successful efforts to promote school completion underscore the

importance of relationships as a critical factor in school success.. Hammond (2007) reviewed more than 75 studies of effective dropout prevention programs and concluded "In particular, the 'personalization' of education—striving to understand the nature of academic, social, and personal problems affecting students and tailoring services to address individualized concerns—is an essential component" (p. 7). Tomlinson's (2003) definition of differentiated instruction as "responsive" synthesizes the essential elements of personalization:

Differentiated Instruction is responsive instruction. It occurs as teachers become increasingly proficient in understanding their students as individuals, increasingly comfortable with the meaning and structures of the disciplines they teach, and increasingly expert at teaching flexibly in order to match instruction to student need with the goal of maximizing the potential of each learner in a given area. (Tomlinson, 2003, p. 3)

Invitational Education provides a framework for thinking more specifically about these personal dynamics. As summarized by Purkey and Strahan (1995) the basic goal of an invitational approach is to "intentionally summon success for everyone" (p. 1). When teachers view students as able, valuable, and responsible, they are more likely to plan lessons that tap potential and respond with encouragement (Riner, 2003). Schmidt (2007) described invitational education as "an inclusive model of communication and

human relations,” guided by a belief system that “embraces, celebrates, and honors diversity” (p. 16).

To examine these dynamics at the classroom level, Strahan and colleagues conducted a series of case studies with teachers who have demonstrated success with students in challenging settings (Strahan, Smith, McElrath, & Toole, 2001; Strahan, Faircloth, Cope, & Hundley, 2006; Strahan & Layell, 2006; Strahan, Faircloth, Cope and Hundley, 2007). Based on these studies and others, Strahan (2008) developed a conceptual framework for “developing academic momentum with reluctant students.”

In a school setting, momentum is the strength of a student’s engagement with learning activities. Students with strong academic momentum approach new assignments with confidence. Based on previous experiences with similar tasks, they know they are likely to do well. If a task proves to be difficult, they know they have a repertoire of skills and strategies they can employ. Students with little academic momentum show little confidence and doubt their abilities to do well. In some cases, they have internalized a sense of inadequacy that makes it very difficult to invest effort on assignments. To observers, they may appear “unmotivated,” “turned off,” or “disconnected.” (Strahan, 2008, p. 4)

Figure 1. The dynamics of developing academic momentum with reluctant students – adapted from Strahan, D. (2008). “Successful Teachers Develop Academic Momentum with Reluctant Students, Middle School Journal 39 (5), 4-12

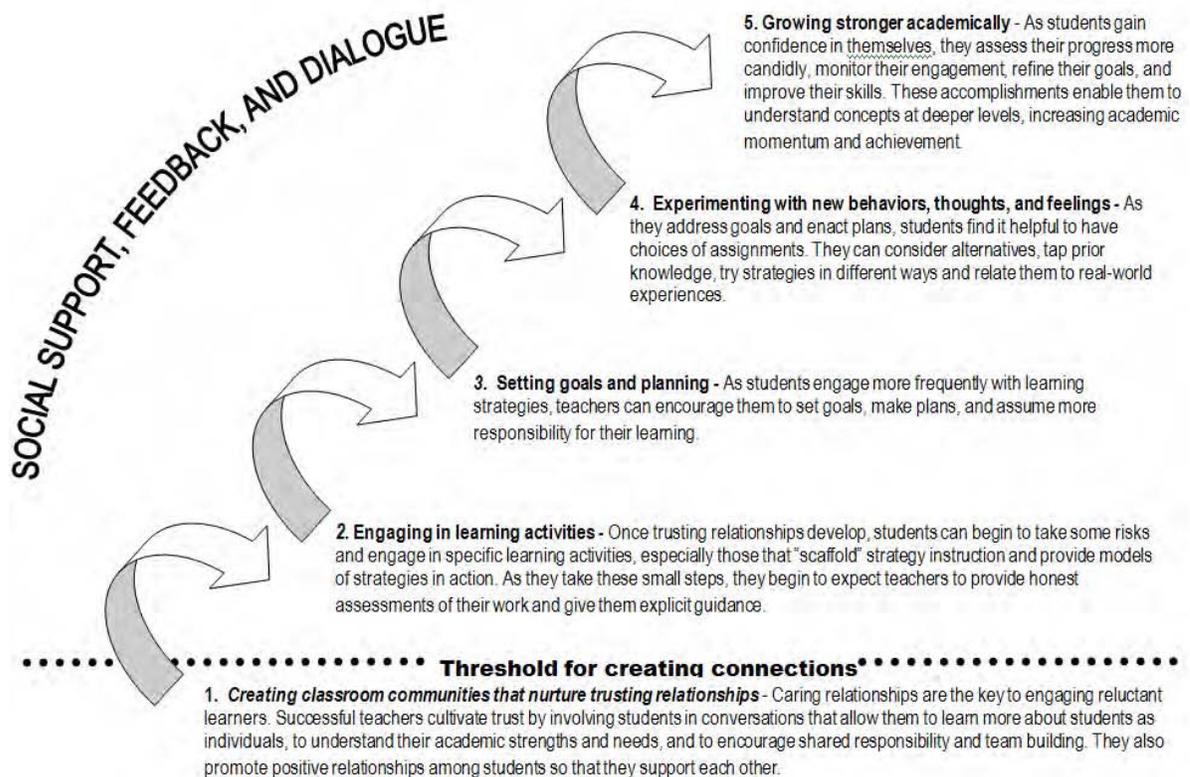


Figure 1 presents a model that shows how successful teachers nurture academic momentum. As this diagram suggests, successful teachers provide social support, feedback, and dialogue in ways that encourage students to take more ownership of their learning. From the bottom up, teachers begin this process by creating classroom communities that invite trusting relationships. They make a conscious effort to learn more about students as individuals and to promote positive relationships among classmates. In doing so, they create climates that promote trust. Trusting teachers and peers creates a “threshold” that invites students to engage more intensively with lesson activities. Based on their growing understanding of students’ strengths, interests, and needs, teachers scaffold lessons that focus explicitly on learning strategies. Positive lesson experiences give students the confidence they need to assume more responsibility for their own learning. They can set goals, make plans, and assess their own progress more proficiently. As momentum grows stronger, students can experiment with new learning strategies and make more productive choices. These dynamics result in higher levels of efficacy, self-regulation, and achievement.

These studies of successful teaching provided a conceptual framework for examining more intensively the dynamics of success among teachers and students on one middle school team. In an earlier report, researchers documented ways that Robert and Janet increased engagement with their seventh grade students through a process of

“academic connections” (Strahan and Hedt, 2009). Analysis of observations, interviews, and documents showed that three major types of events – creating classroom learning communities, learning more about students as individuals, and drawing from a main menu of instructional strategies - resulted in higher levels of engagement and higher levels of reasoning. Results from achievement tests given at the end of the school year showed that students on this team made higher growth in both reading and math than the average gain for the grade level at the school.

Methods, Data Collection, and Analysis

Based on the study by Strahan and Hedt, (2009), we designed a follow-up case study to examine the dynamics of responsive teaching in greater detail. We analyzed ways that Robert and Janet implemented an integrated unit and chronicled the ways that five students responded (Strahan, Kronenberg, Burgner, Doherty, and Hedt, M., 2010). In this investigation, we re-analyzed data from that investigation to focus more specifically on the dynamics of responsiveness with one student. Two questions guided this investigation:

1. How do teachers attempt to create academic connections with Mariah?
2. How does Mariah’s understanding of concepts relate to connections she makes with teachers, classmates, and ideas?

This study focused on Mariah's responses to her teachers' efforts to create connections with her and engage her more fully in lessons. Mariah was one of 47 students on Robert and Janet's seventh grade team at Central City Middle, a school which serves just over 600 students in a small city in the southeast. At Central, 35% of the students are members of minority groups and 45% of whom qualify for free and reduced meals.

During the fall of 2008, teachers worked together to develop an interdisciplinary unit entitled "Hungry Planet." The unit began with a video about hunger around the world, a speaker from a local food bank, and a presentation on Doctors without Borders. Lesson activities in language arts, social studies, math and science provided opportunities to examine data and explore issues. Researchers selected this unit as the focus of the study so that Mariah's development of concepts could be situated in the context of specific content.

In the broader study (Strahan, Kronenberg, Burgner, Doherty, & Hedt, 2010), teachers identified five students who represented a range of academic performance and who had demonstrated varied approaches to instructional activities. Researchers obtained consent from these students and their parents to participate in a case study. To explore ways that students learned central concepts, researchers observed lesson activities, examined work products, and interviewed students. For this report, we reexamined the data collected with Mariah, a thirteen-year old minority student. We replaced the names

of students and teachers with pseudonyms to preserve confidentiality.

The Hungry Planet unit was guided by five main themes that were linked to world hunger: nature, education, economics, population, and politics. To describe Mariah's understanding of concepts, researchers examined four central work samples (science lab summary, math charts and graphs, final concept map, and the concluding essay) and interviewed her about her experiences with the activities. Researchers also interviewed teachers about their work with her. Researchers interpreted data using pattern matching procedures, integrating analyses of work samples with Mariah's comments and her teachers' reflections. In writing this report, researchers constructed a narrative case summary to describe the types of connections Mariah made with concepts and activities.

Results

During the Hungry Planet unit, Mariah developed personal connections with concepts related to hunger which helped her understand ideas at a deeper level. She often made sense of new ideas by relating them to her own experience. For example, she explained a connection she saw between the opening video and her work in math:

In the math lesson my group chose life expectancy and how small they were as babies. In the auditorium we saw about how long you can live if you are hungry. The people in the video were so hungry that it could change how long they could live.

In many of her comments, Mariah seemed aware of her learning preferences. For instance, she described her reaction to the opening seminar by explaining:

I liked seeing the video—the people were very small and hungry. It really showed the hungry planet. It showed it - that's why I liked it. I learn sometimes by just watching something.

In a related way, she often reflected on activities by summarizing what she had read or seen. For example, when asked for her reaction to the lesson using the *Hungry Planet* books she described it by saying:

“You had to pick a family from a country, and write about them and how much money they used for food each week. We also wrote about the number of people in the family. We picked one family from each region. I was surprised at the families that didn't have a lot of money but had a lot of food for just four people. It was related to hunger because it showed pictures of people from areas that had lots of food or no food. There were different amounts of food in different regions.”

In a subsequent lesson, students read and discussed articles about the situation in Sudan. In this lesson, Mariah found it difficult to relate ideas to each other. In her interview, she said,

“The Sudan lesson was most related to hunger because it was about genocide. That is when one group of people is wiping out another group. Also, there are people who

have no food in Africa. People are taking away their food, too.”

While she linked hunger and genocide, her response showed a limited grasp of the complexity of the situation.

Mariah often recalled the elements of lessons in step-by-step fashion, explaining each activity specifically. After the dew point science lab, for example, Mariah described the procedure of the experiment, the equipment used to complete the experiment, and explanations her teachers supplied to help guide students through the experiment. She used vocabulary such as “temperature,” “minimum temperature,” and “10.5 degrees Celsius,” to describe the activity. Although it was apparent that Mariah enjoyed this lesson, she made few connections between the concepts dew point and hunger. On the assignment sheet, Mariah underlined the following information, “The dew point temperature is the temperature at which the air can no longer hold all of its water vapor, and some of the water vapor must condense into liquid water...In very warm, humid conditions, the dew point temperature can reach 75 to 77 degrees.” In the margins, next to the text she underlines, Mariah wrote “key sentence” and “important.”

As the unit progressed, Mariah built more connections related to her own personal experiences. An assignment at the end of the *Hungry Planet* unit involved the use of a graphic organizer that encouraged students to connect ideas about the guiding themes of the unit to each other. For the section about hunger and education, Mariah wrote, “You

need enough food to feed your brain, to receive information.” She later explained that she came up with this idea, not from reviewing information from her hungry planet assignments but from her memory about a conversation in her Social Studies class.

“I didn’t use any assignments to come up with the idea about having food to feed your brain so you can learn. We talked about it in class. Like how hunger can make it hard to think. So it would be hard to get an education.”

She mentioned how, in class, they talked about times they have been hungry in morning classes because they did not have breakfast, and that was how she understood the connection between education and hunger.

Relating information to herself and seeing demonstrations or examples of new concepts helped Mariah strengthen conceptual connections. On another section of her graphic organizer, Mariah wrote, “If the soil is not rich enough and the rain is not heavy enough to produce food, people cannot get food.” She reflected on this statement by saying “I thought of this because we talked about different places that try to grow food and why it is harder in some places than others. The soil really matters.”

The Hungry Planet unit concluded with a seminar in which students viewed a photograph of a city. After sharing observations, they were presented with a second photo - an image of people scavenging in a large pile of rubble along a

river. Students then put the photographs together to see that they were really one image cut into two. They discussed the issue of “the haves” and “have nots” living side by side. The seminar ended with the questions, “How do these photos relate to our study of hunger during Hungry Planet? And, what are specific actions we could take at school, home or in our communities to help end poverty?” Mariah explained, “I think that hunger in the US might be stopped if some people stopped wasting food.” While Mariah identified the concept of waste as a part of hunger, she struggled to articulate other causes of the situation in the photo.

The final assessment was a writing task in which students wrote to the United Nations to present a plan to solve world hunger. Mariah generated ideas for raising funds to benefit the hungry. She described the countries that would receive food and how she would get it there. She thought of countries which needed food and how she would organize distribution. Her solution focused solely on her efforts as an individual solving world hunger on her own and did not clearly link together connections with the major themes of the unit.

When asked to share perceptions of Mariah and her work in interviews, Janet and Robert reported that they learned to group Mariah with friends, emphasizing that she was comfortable with them and productive with them. Janet recalled “We knew we had to put her with the person she knew best in the class or she’d just shut down; she’s shy like that.” The teachers noted that within her friendship group she demonstrated social

leadership skills that she was not aware of until they were pointed out to her. “We explained to her that they see her as the ‘mom’—the nurturer who cares for people and keeps them in line. We used this to push her into leadership positions she might not have otherwise taken on in her group of friends. She’s definitely maternal, and could use that to get results.”

Both teachers appreciated the way Mariah improved her reading score. Janet noted, “We thought she could pass, we just weren’t sure she really tried the first time. She had to re-take the reading test. I was pretty sure she’d pass on a second try. She is really focused on the grades, or the numbers. She can be motivated by all that.” Robert added “In math, I wasn’t always seeing her get it, like witnessing her complete problems, but she always knew how, like she soaked it up from class somehow. She must have been doing the work but not always turning it in. She always did well on assessments so I assumed she had her own system for ‘getting it.’ It was always a bit of a mystery that she did as well as she did throughout the year. I just had to trust she understood it all when she said she did.” Janet found it interesting that Mariah often hid her abilities from her friends.

It was seen as not cool to read, but she found ways to get it done. She also worked well with adults and thrived on positive adult attention - though, again, she had to make it seem like she did not like the attention when around her friends. One reason she improved her reading so much is that she is a secret reader. I learned not to talk with her about

books in front of other students. She is super shy. If we offered to work with her during class, she would say “I don’t need help.” I found that if I talked with her off-stage, she loved talking about books. I ordered a few things just for her and made sure she got to keep them. (June 30, 2009)

Teachers expressed concern that the eighth grade teachers continue to pay close attention to Mariah. Janet expressed this clearly when she concluded:

“They really need to make sure they get the feedback from her side to know she is getting it—there is the potential for her to fall through the cracks as she goes. It can’t just be assumed that she’ll be okay without checking in with her. You need to conference with her privately. Mariah is a girly-girl at heart. This interest can be used to motivate her. I used glamour books that I knew she’d love to get her to read. It’s one way to connect to her, to her personal interests- that are important to consider. To get her to read, you can push books toward her that you think she’d be in to, then walk away. She doesn’t really want you to see her getting in to it. But, she does want to read it. She might be an excellent candidate for the cosmetology program at the high school—she’s into that. She is much more ‘glam’ than her family, a teacher can use that to make a connection with her. She has a keen ability to fly below the radar—she is most comfortable there, not drawing attention to herself”.

At the end of the year, Mariah demonstrated dramatic growth on her state-mandated achievement tests. She gained ten

developmental scale points in reading and three in math, maintaining her status of “proficient” in both areas. In her final interview, she noted:

“I got a 3 on math. I expected it so it felt good to get a 3. I had to retake the reading test and got a 3 the second time. I knew I did not pass the reading test on the first try because I kept on falling asleep on the first time. I made more effort on my second try, not to fall asleep. I went to bed earlier the night before and I ate breakfast, that all helped me for the second time.”

She said she wanted to make AB Honor Roll. “I was really close all this past year. I want to do all my work and pay attention in class. And, I want to learn what I need to learn.” She added:

“I learn easy when I do things like hands-on activities. I like to read fiction. I am quiet and not really a people-person. Group work is better for me when I am with a friend. When I am with a friend they can help me do stuff, they help me understand”.

A telling statement Mariah made about the kind of student she would like to be next year was, “I will ask for help when I need it, and pay attention.” As her teachers noted, Mariah almost never asked for help in seventh grade.

When asked, “What were the most helpful things your teachers did?” her responses included:

“With Mr. B. we learned about the median and the upper/lower quartile. We had a

chance to do it on the graphing calculator and that really helped me, to be able to see it. I got to see it and actually do it.

Ms. D. would help us learn things using videos and making us do big projects. Putting things on the board and walking us through problems, then giving us some problems to work on our own or like in pairs - that would help me. They would check in on us when we worked alone and answered questions, gave us more time too if we needed it.

Mr. B. would give us some problems to work on. If someone couldn’t get the new thing right away he could stay to get extra help if he needed it, like right away. Like, instead of just waiting until tomorrow to see if he could help, he’d let him stay during part of exploratories or like during lunch or after school. That surprised me”.

Conclusions

Mariah’s responses to her teachers’ efforts to create connections with her provided a glimpse of the dynamics of responsive teaching in microcosm. Robert and Janet demonstrated the type of “strong focus on student welfare and learning that drives their teaching decisions and self-improvement efforts” emphasized by Hammerness, Darling-Hammond, & Bransford (2005, p. 379). By focusing on one student, this case study showed that responsive teaching is not only a focus on student welfare in general, but also the art of orchestrating responses simultaneously with individual students.

Analysis of Mariah's responses to her teachers' invitations illustrated the dynamics of "developing academic momentum with reluctant students" described in Strahan's (2008) conceptual framework. Janet and Robert made conscious efforts to create a classroom community that nurtures trusting relationships. They cultivated trust by learning more about Mariah as an individual. They observed that she worked best with certain students, encouraged her to be a leader among these students, and held "off-stage" conversations with her to learn more about her reading interests. Aware of her "keen ability to fly below the radar," they paid careful attention to her through observations and conferences. Crossing a threshold of trust, Mariah began to engage in learning activities more enthusiastically, readily expressing her enjoyment of specific lessons such as the opening seminar, the dew point science lab, and the letter writing assignment. As the year progressed, she became much more proficient in setting goals and planning. She took responsibility for understanding math problems, reading selections she chose, and improving her score on the end-of-grade reading test. Although she set goals for herself to make the honor roll as an eighth grader and ask her teachers for help more often, she rarely articulated more immediate goals. At the end of seventh grade, her test scores and grades indicated that she had grown stronger academically. Even so, her teachers were concerned that her progress into eighth grade might be fragile.

Mariah's progress affirms previous studies that have emphasized the power of positive

relationships in middle level classrooms (Furrer & Skinner, 2003; Hammerness, Darling-Hammond, & Bransford, 2005; Strahan, 2008). From the beginning of the year, Janet and Robert made conscious efforts to get to know her as a person. They learned that she worked well with certain friends, that she was interested in fashion, and that these interests sparked enjoyment of reading. By being attuned to their students' academic, social and emotional needs, Robert and Janet were able to cultivate a sense of belonging. In so doing, they personalized the process of differentiation. Responsive instruction on their team was not just about academic concepts; it was a process of inviting Mariah, as a unique individual, to be successful.

At the same time, her teachers' concerns that she not "fall through the cracks" as an eighth grader remind the authors that progress across grade levels may depend on a range of factors not considered in this investigation. Although limited in time and scope, results might help teachers in other settings create connections with students, especially those like Mariah who "fly beneath the radar." Robert and Janet learned about her interests and found ways to address them. They identified the structure of her thoughts and helped her build upon partial structures to accomplish deeper levels of comprehension. In doing so, they "summoned" success with Mariah. They enacted their views of her as able, valuable, and responsible and encouraged her to see herself in those ways, demonstrating the power of invitations as an essential element of the responsiveness that distinguishes

accomplished teaching from the ordinary (Darling-Hammond and Bransford, 2005).

References

- Bransford, J. D, Brown, A. L, & Cocking, R.R (2000). How people learn. Washington, DC: National Academy Press.
- Darling-Hammond, L., and Bransford, J., Editors. (2005). Preparing teachers for a changing world. San Francisco, CA: Jossey-Bass.
- Furrer, C. and Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology*, 95(1) 148-162.
- Hammerness, K., Darling-Hammond, L., & Bransford, J. (2005). How teachers learn and develop. In L. Darling-Hammond and J. Bransford, Ed., *Preparing teachers for a changing world*. San Francisco, CA: Jossey-Bass, pp. 358-389.
- Hammond, C., Principal Author. (2007) *Dropout Risk Factors and Exemplary Programs: A Technical Report*. National Dropout Prevention Center at Clemson University and Communities In Schools, Inc.
- Purkey, W. W. and Strahan, D. (1995). School transformation through Invitational Education. *Research in the Schools*, 2(2), 1-6.
- Riner, P. S. (2003). The intimate correlation of invitational Education and effective classroom management. *Journal of Invitational Theory and Practice*, 9, 43-55.
- Schmidt, J. J. (2007) Elements of diversity in invitational practice and research. *Journal of Invitational Theory and Practice*, 13, 16-23.
- Strahan, D. (2008). "Successful Teachers Develop Academic Momentum with Reluctant Students. *Middle School Journal*, 39(5), 4-12
- Strahan, D., Smith, T., McElrath, M., and Toole, C. (2001). Profiles in caring: Teachers who create learning communities in their classrooms. In T. Dickinson (Ed.). *Reinventing the Middle School*. NY: Routledge Press: 96-116.
- Strahan, D. and Layell, K. (2006). Connecting caring and action through responsive teaching: How one team accomplished success in a struggling middle school. *The Clearing House*. 9(3), 147-154.
- Strahan, D., Cope, M., Hundley, S., and Faircloth, C. (2005). Positive discipline with students who need it most: Lessons learned from an alternative approach. *The Clearing House*, 79(1), 25-30.
- Strahan, D. and Layell, K. (2006). Keeping the faith when the going is tough: How one team accomplished success in a struggling middle school. *The Clearing House*, 79(3), 147-154.
- Strahan, D. Faircloth, C. V., Cope, M., and Hundley, S. (2007). Exploring the dynamics of academic reconnections: A case study of middle school teachers' efforts and students' responses. *Middle Grades Research Journal*, 2(2), 19-41.
- Strahan, D., and Hedt, M., (2009) *Teaching and Teaming More Responsively: Case Studies in Professional Growth at the Middle Level*, RMLE Online—Research in Middle Level Education, Volume 32(8).
- Strahan, D., Kronenberg, J., Burgner, R., Doherty, J., & Hedt, M. (2010). Deep thinking and differentiation: Developing a logic model for responsive teaching in an urban middle school. Paper presented at AERA, Denver, CO.
- Tomlinson, C. A. (2003). *Fulfilling the promise of the differentiated classroom*. Alexandria, VA: