

## Instructional Data Coach Model

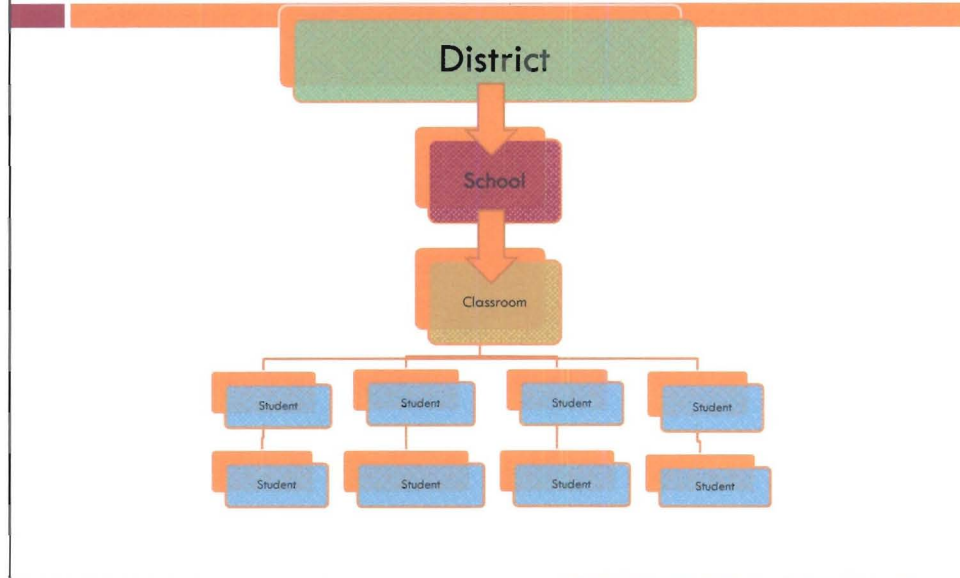
### □ Purpose

- Purpose of the instructional data coach model is to help close the achievement gap and accelerate learning for all students by building teacher capacity through implementation of effective instructional practices (Casey, 2008).

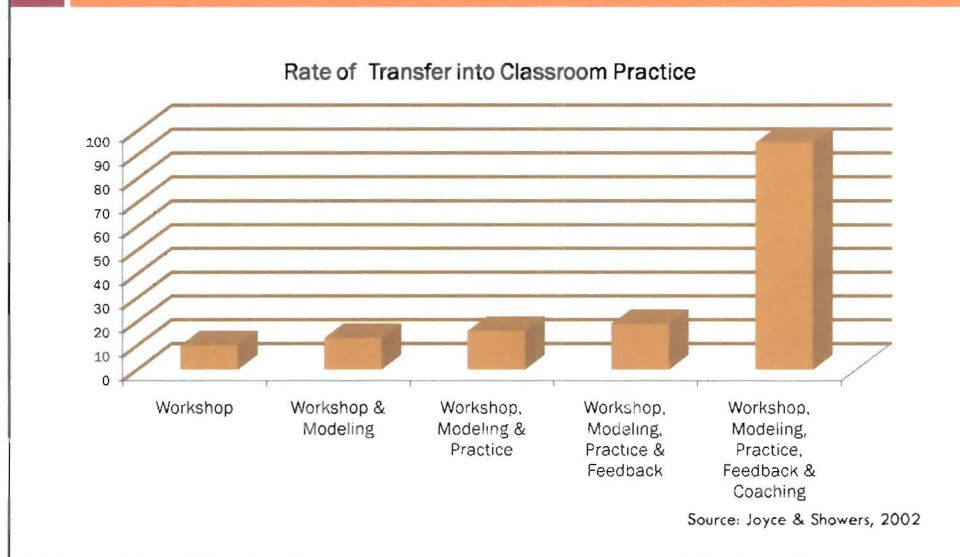
### □ Rationale

- Alignment of effort = greater student impact
- Most effective way to deliver professional development

## Alignment and Student Impact



## Professional Development and Effectiveness



## What Are We Doing?

- Job Descriptions were written collaboratively with the Duluth Public Schools Quality Steering Committee in Spring 2010 (see Appendix A for an example of a Middle School Instructional Data Coach – Math Specific)
- Instructional Data Coach Model was developed based on best practice (See Appendix B for Duluth Public Schools Instructional Data Coach Model)
- Various roles of the data coach
  - Classroom Supporter
  - Instructional Supporter
  - Curriculum or Content Facilitator
  - Data Coach
  - Facilitator of Change
  - Learner
  - Professional Learning Facilitator
  - Resource
  - School Leader
  - Mentor

Killion and Harrison, 2006

## How Are We Doing... (so far)?

- Evaluation process to date
  - Formal monthly evaluations from Instructional Data Coaches
  - Professional Development Log (time study logs)
  - Mid-year focus group with Instructional Data Coaches
  - Informal conversations with principals
- Year-end evaluation – Stay tuned!
  - Student achievement data
    - Benchmark Assessments, NWEA, MCA
  - Year-end focus group with Instructional Data Coaches
  - Formal monthly evaluations from Instructional Data Coaches
  - Professional Development Logs (time study logs)
  - Interviews with principals
  - Staff survey data

## Past and Present

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>□ Past           <ul style="list-style-type: none"> <li>□ Staff development was scattered, based on individuals' preferences</li> <li>□ Staff development funds were used to pay for workshops, trainings, out-of-town travel...</li> <li>□ Data use was limited to year-end data (MCAs)</li> <li>□ Students were placed into classes based on teacher recommendation</li> <li>□ Staff development was a "one shot" experience</li> <li>□ Staff development was dependent on outside experts</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>□ Present           <ul style="list-style-type: none"> <li>□ Staff development is aligned with High Achievement aim – staff working together collaboratively</li> <li>□ Staff development funds are used to pay for our greatest assets... our teachers! ...and time together to learn from each other...</li> <li>□ Data is used ongoing to drive instruction and improve instructional practice</li> <li>□ Students are placed into classes based on many sources of data (including teacher recommendation)</li> <li>□ Staff development is on-going and sustainable. We are building capacity.</li> <li>□ Staff development capitalizes on our internal expertise</li> </ul> </li> </ul> |
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## Evaluation: Monthly Evaluations

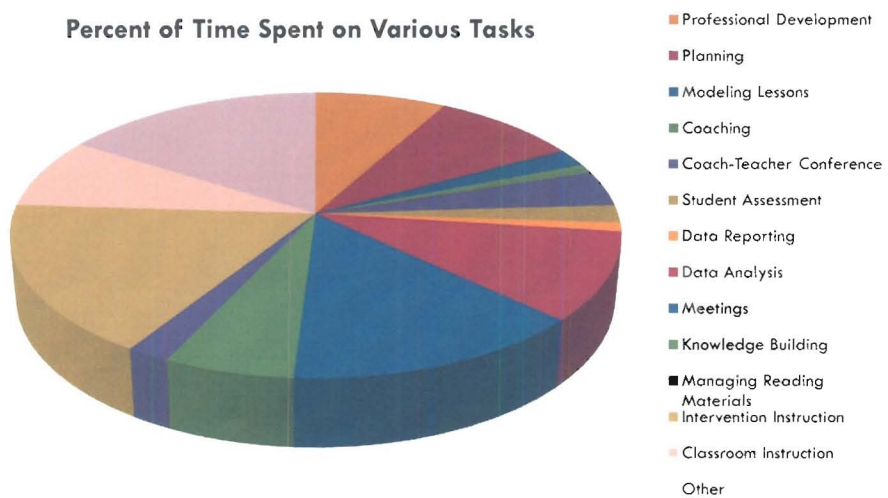
- Each month, Instructional Data Coaches meet for a day for professional development
- Training strands include:
  - Use of Data
  - Curriculum and Assessment (Reading and Math)
  - Coaching and Leadership
  - District-Wide Interventions
  - Cultural Competency
- Training is evaluated monthly (See example of most recent evaluation in Appendix C)

## Evaluation: Professional Development Logs

- Each week, Instructional Data Coaches report on their activities (See example in Appendix D)

## Evaluation: Professional Development Logs

Percent of Time Spent on Various Tasks



## Evaluation: Informal Data

- Mid-year focus group with Instructional Data Coaches
  - Instructional data coaches were asked to describe the work that they do and the results that they have observed at the mid-year point
  - Responses were grouped according to the roles of the instructional data coach, as defined in the Duluth Public Schools Instructional Data Coach Model.
  - All responses are presented verbatim (See Appendix E).
- Conversations with principals
  - Informal conversations and check-ins throughout the year
  - Recent comments compiled and presented verbatim (See Appendix F).

## Next Steps

- Continue evaluation process – Year-End Evaluation
- Use evaluation data as a guide for improvement
- Celebrate successes!

**Job Description****Middle School Instructional Data Coach (Math)**

The Middle School Instructional Data Coach (Math) will be responsible to interpret site specific data, research/assist with facilitation of best practice instructional strategies, and collaborate with school staff/district to raise student achievement in math.

- Responsible for teaching 2 hours of Math Lab
- Responsible to help facilitate staff development opportunities at your school site
- Responsible to attend district level training (data interpretation, coaching strategies, professional learning community development, best practice math strategies, etc.)
- Responsible to collaborate with classroom teachers: modeling effective classroom practices for math, facilitating PLC (Professional Learning Communities), etc.
- Responsible to collaborate with building leadership on a regular basis.

**Qualifications**

- Desired qualification: Strong background in teaching math
- Secondary Education or Relevant Advanced Degree
- Tenured teacher with a minimum of 8 years of classroom teaching experience
- Demonstrated efficacy in working with adult learners
- Skills in technology, classroom instruction, and organization and management

## Duluth Public Schools Instructional Data Coach Model

### Purpose of Instructional Data Coaching

The purpose of the instructional data coach model is to help close the student achievement gap and accelerate learning for all students by building teacher capacity through implementation of effective instructional practices (Casey, 2008). "Improving teachers' learning and, in turn, their own practice and their students' learning, requires professional development that is closely and explicitly tied to teachers ongoing work. Coaching addresses that requirement" (Neufeld & Roper, 2003). The coaching model recognizes the needs of each individual teacher and is tied to each school's site plan and the district's strategic plan. In this way, effective collaboration can result in the ultimate goal of improved student performance.

### Rationale

Instructional data coaching is an action step in the current Duluth Public Schools Strategic Plan (2010-2011). Coaching can be instrumental in helping to:

- Meet Adequate Yearly Progress in reading and math in all schools and at the district level
- Increase high school graduation
- Provide clear and specific connection between student achievement data, the Site Improvement Plan and the District Strategic Plan
- Encourage equitable student participation to be disaggregated by ethnicity and socioeconomic status in all programs

### Roles

The role of instructional data coach is multidimensional. Coaches often fill multiple roles simultaneously. Killion and Harrison (2006) have identified 10 common roles regardless of the coaching approach used.

#### **Role #1: Classroom Supporter**

**Purpose:** To increase the quality and effectiveness of classroom instruction based on using the gradual release model and may include but is not limited to: collaborating, co-planning, modeling, co-teaching, providing descriptive feedback based on teacher requested observation

#### **Role #2 Instructional Supporter**

**Purpose:** To support the implementation of effective instructional strategies including but not limited to: assessment of learning, differentiation of instruction, standards based learning, building capacity by working with intervention groups

#### **Role #3 Curriculum or Content Facilitator**

**Purpose:** To promote implementation of local and state standards through adopted curricula including but not limited to: increasing teacher content knowledge, facilitating a better understanding of the structure of the written, taught and tested curriculum, dissection of standards to guide identification of essential knowledge and skills

#### **Role #4 Data Coach**

**Purpose:** To facilitate conversations using data to drive instructional decisions including but not limited to: collaborating with teachers to analyze formative and summative student achievement data, assisting teachers with the use of data to improve student learning

#### **Role #5 Facilitator of Change**

**Purpose:** To engage teachers in reflective thinking while looking at their own instructional practices critically and analytically including but not limited to: fostering a safe, trusting environment for teachers, introducing alternatives and refinements for teacher instructional practices

#### **Role #6 Learner**

**Purpose:** To engage in continuous learning in order to keep current including but not limited to: engaging in professional development opportunities and professional reading, practicing and reflecting about what is learned

#### **Role #7 Professional Learning Facilitator**



**Purpose:** To design and facilitate effective professional learning opportunities including but not limited to: Providing professional development, facilitating other forms of professional development

**Role #8 Resource**

**Purpose:** To identify a variety of resources to enhance classroom instruction and student achievement including but limited to: indentifying instructional and assessment resources requested by teachers, sharing research and instructional best practice

**Role #9 School Leader**

**Purpose:** To support and communicate the school and district initiatives with the school community including but not limited to: involving stakeholders in the implementation of School Improvement Planning, connecting with community stakeholders by sharing instructional practices that impact students, acting as a strong advocate for student learning

**Role #10 Mentor**

**Purpose:** To support new teachers or those who mentor new teachers to increase instructional skills and awareness of school and district initiatives

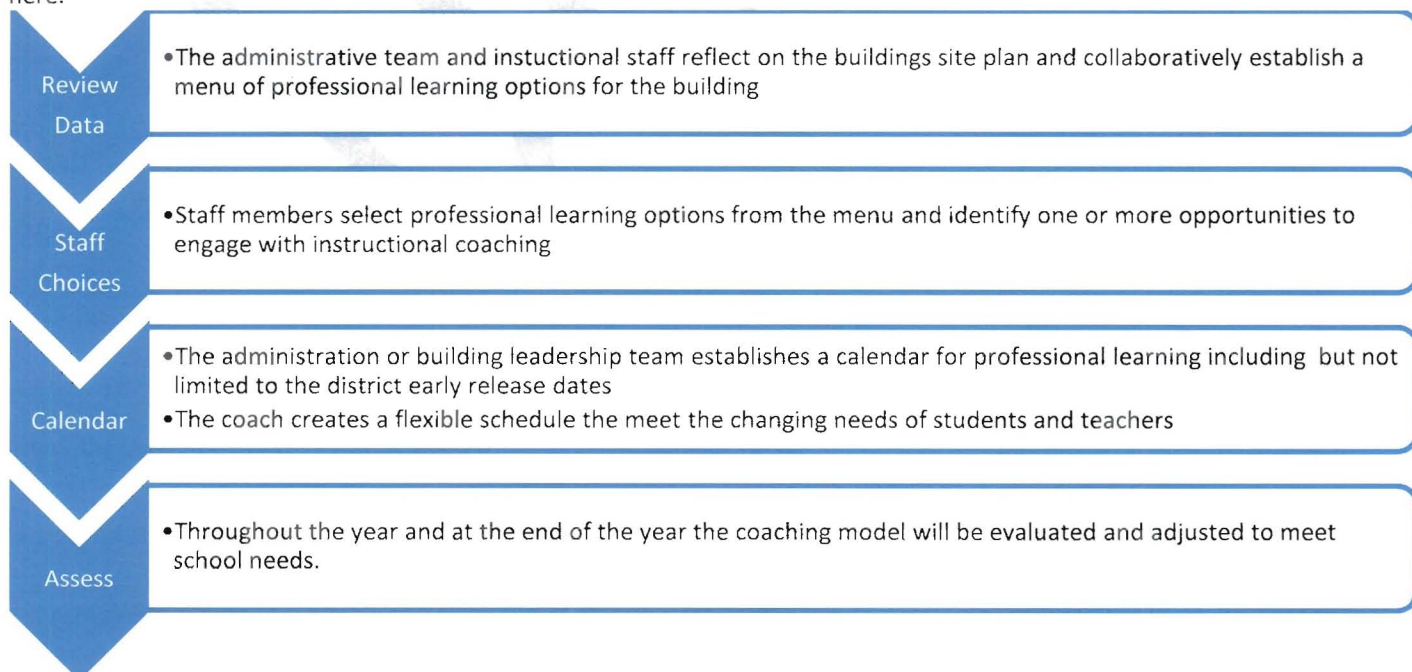
**Implementation at schools**

Administrative teams will communicate with staff the purpose and the roles of the instructional data coach and how the coaching model supports improvement of student learning. Instructional and administrative staff [including the coach] will review relevant data and the school site plan to determine building focus for coaching. Coaches participate in district trainings relevant to instructional coaching including the processes for determining readiness and implementing the instructional coaching model in each building.

The on-going foundation of a professional learning community is essential for building a common knowledge and experience around the written, taught and tested curriculum. Throughout the implementation of coaching in a school, coaches are able to:

- Work with teachers to review data
- Facilitate inter-visitations to see and learn from other classrooms
- Organize study groups, on-site workshops and book studies
- Work with collaborative groups to examine student work and plan instruction
- Read and provide research to staff
- Attend coaching trainings and bring information and strategies back to building staff
- Help to establish common vocabulary; background knowledge and experiences; and collaborative relationships

Schools implement instructional coaching through a process best fitting the school culture. One suggestion of a process is illustrated here.



**Resources:** Staff development that improves the learning of all students requires resources to support adult learning and collaboration.

**Process standards** refer to the “how” of professional development. They describe the learning processes used in the acquisition of new knowledge and skills. Process standards address: the use of data, research-based practices, adult learning and collaboration.

**Data-driven:** Staff development that improves the learning of all students uses disaggregated student data to determine adult learning priorities, monitor progress, and help sustain continuous improvement.

**Evaluation:** Staff development that improves the learning of all students uses multiple sources of information to guide improvement and demonstrate its impact.

**Research-based:** Staff development that improves the learning of all students prepares educators to apply research to decision making.

**Design:** Staff development that improves the learning of all students uses learning strategies appropriate to the intended goal.

**Learning:** Staff development that improves the learning of all students **applies** knowledge about human learning and change.

**Collaboration:** Staff development that improves the learning of all students **provides** educators with the knowledge and skills to collaborate.

### Knowledge and skills

Coaches need to understand and integrate best practices to support quality teaching and learning.

- a. Initial training for new coaches focused on overviews of the following:
  - Instructional Coaching Model
  - District Initiatives
  
- b. On-going training will be provided. Topics will include, but not be limited to the following:
  - Use of data to inform instruction
  - Coaching foundations
  - Curriculum and assessment
  - Pedagogy
  - Professional Learning Communities
  - Cultural competency
  - Essential elements of adult learning
  - Change theories
  - Planning and giving effective presentations & processing protocols

### Infrastructure for on-going professional development for coaches

Two full days of training in August; One full-day each month:

- Coaches will meet in content/instructional level groups or a K-12 group
- Coaches will engage in professional learning and collegial problem solving
- Coaches will utilize cross grade/school level conversations to promote systemic alignment

Coaches will meet regularly with their principals to focus their work in support of the school site plan. Coaching training agenda, schedules and minutes will be communicated to principals with an open invitation to attend any coach training.

### Planning and Coordination

- Cadre of coaches
- Learning Services Department
- Consultant, as appropriate

**Specific Training Strands  
for on-going professional development - years 1-3**

<p align="center"><b>Use of Data</b></p> <p>Creating a passion in others for using data</p> <p>Responsible and ethical uses of data</p> <p>Understand district and site MCAII profiles</p> <p>Understand AYP interpretations</p> <p>District assessment- the basics – who, what, when and why</p> <p>Accessing data- Benchmark data, NWEA, MCAII (summary and Individual student- level), MDE, Tableau, NWEA website, Infinite Campus, Excel Spreadsheets</p> <p>Progress monitoring between benchmark periods</p> <p>Data driven dialogues</p> <p>Data walls</p> <p>Using data to inform instruction</p> <p>Matching student data to interventions</p>	<p align="center"><b>Curriculum and Assessment Reading</b></p> <p>Written, taught and tested curriculum</p> <p>State and district assessments</p> <p>Standards based reporting</p> <p>Assessment for learning</p> <p>Review of student work</p>	<p align="center"><b>Coaching and Leadership</b></p> <p>Essentials of adult learning</p> <ul style="list-style-type: none"> <li>Creating a safe and supportive environment</li> <li>Goal setting (with data)</li> <li>Group Dynamics</li> <li>Adult learning styles</li> <li>Adult communication styles</li> </ul> <p>Coaching Foundations</p> <ul style="list-style-type: none"> <li>Mentoring</li> <li>Focused Conversations</li> <li>Protocols for Professional Learning</li> <li>Program documentation</li> <li>Coaching Continuum (guided release model)</li> <li>Develop, Commitment, Support, Implement, Reflect</li> </ul> <p>Teaching Learning Cycle</p> <ul style="list-style-type: none"> <li>Assessing, evaluating, planning, teaching, learning, assessing...</li> </ul> <p>Theory of Change- Theory of Action</p> <p>Understanding by Design</p> <ul style="list-style-type: none"> <li>With the end in mind</li> </ul> <p>Differentiation</p> <ul style="list-style-type: none"> <li>What, where when, how</li> <li>Principles of Learning: Brain-Based Learning, Motivation Theory, Transfer Theory, Practice Theory, Reinforcement Theory, Retention Theory, Attribution Theory</li> </ul>
<p align="center"><b>Cultural Competency</b></p> <p>Achievement gap</p> <p>White privilege</p> <p>Culturally inclusive strategies</p>	<p align="center"><b>Curriculum and Assessment Math</b></p> <p>Written, taught and tested curriculum</p> <p>State and district assessments</p> <p>Standards based reporting</p> <p>Assessment for learning</p> <p>Review of student work</p>	<p align="center"><b>Interventions</b></p> <p>Intervention Pyramid</p> <ul style="list-style-type: none"> <li>Global understanding of how and why it developed.</li> <li>The process and data used.</li> <li>Limitations of that data etc.</li> </ul> <p>Read 180</p> <p>Trans Reading &amp; Trans English; Trans Math &amp; Labs</p> <p>RTI Model /Framework</p>

## Monthly Half-Day Training Provided to Instructional Data Coaches

### Results – April 2011

We would appreciate your feedback on the training over the last two days. Please take some time to complete following survey of your experience. Thanks. Tawnyea, Terri, Patti, Carla, Mary Ann

#### Overall In-Service:

1. The in-service was of high quality. 1=neutral, 4=agree, 9=strongly agree
2. The program content will be useful to me. 1=no answer, 1=neutral, 3=agree, 9=strongly agree

Comments: I appreciated your dedication. It is important for us to come together to share ideas.

#### Impact:

3. I can use knowledge and skills gained during this professional development event to impact my work with teachers this year. 1=disagree, 4=agree, 9=strongly agree
4. I would like additional opportunities to expand my new knowledge and skills. 2=no answer, 1=neutral, 4=agree, 7=strongly agree

Comments: Ending year strong and visible. Found very interesting material in the data bases. I get them every day.

#### Professional Development Practices:

5. A supportive climate of professional community was created. 1=agree, 13=strongly agree
6. Opportunities to network and learn from colleagues were supported. 1=neutral, 13=strongly agree
7. The opportunity to seek meaning and construct new knowledge was provided. 4=agree, 10=strongly agree
8. An appropriate balance between presentation and interaction was achieved. 1=agree, 13=strongly agree

Comments: Greatly appreciated the time for coaching.

#### Presenters:

9. The presenters' overall effectiveness was high. 1=neutral, 1=agree, 12=strongly agree
10. The content of the presenters' presentations was useful. 1=neutral, 2=agree, 11=strongly agree
11. The presenters used appropriate instructional techniques. 2=agree, 12=strongly agree
12. The presenters used high-quality materials. 2=agree, 12=strongly agree

#### Feedback Questions:

What did you value most from this professional development opportunity?

Talking with colleagues-discussion of what went well with data this year. More time to practice research-PLC ideas. Research information. Wrapping up the year. I liked the research practices in the morning. I learned quite a few tips to help me in research. Time to read on-line publicity on math interventions. Time to collaborate with colleagues. Sharing ideas. Next steps for next year to keep momentum and continue process begun this year. The computer lab session was nicely planned, and a timely reminder about research practices, etc.

What will you use from this professional development event in your own position this year?

The personal coaching goal-by May 26-good motivator, the research articles I found were good, loved the skit! Try to gain support. I will now do more research on different topics. Using data to look towards next year. The intervention placement, research-online. Coaching-research information. Have teachers take 5<sup>th</sup> grade science test. Develop relationships with 2<sup>nd</sup> grade teachers. What other professional development events would be of benefit to you in the future? Review Tableau in fall. More time to learn from one another. Knowledge of Math Interventions in Elementary. More sharing/training from each other.





<p><b>14. Other</b> Other tasks are assigned that are performed using regular contracted hours. Many of these tasks are appropriate and necessary for the coach to perform; however, some may inhibit the effectiveness of the role of the coach. Examples of appropriate tasks may include: traveling between schools or meetings; attending a meeting related to reading, taking charge of a teacher's classroom while the teacher observes a model lesson in another classroom; presenting reading/math related information to parents and entering data into the coach's log. Examples of tasks that inhibit the effectiveness of the role of the coach include: substitute teaching, administrative tasks, and excessive bus/lunch/hall duty (this may be appropriate as long as it is not beyond what is required of all teachers).</p>	32.00	11.00	9.50	12.50	12.50	11.50	18.00	<b>107.00</b>
	<b>TOTAL HOURS</b>	79.50	67.50	71.00	60.00	74.00	50.00	70.50

**Curriculum or Content Facilitator**

Connecting dept. goals to reading/math site goals, support of math/reading throughout the building with students  
 Explanation of state standards and how to connect to our "unique" situation  
 Getting curriculum/training for sped teachers, sped teachers/students are being accounted for and have support  
 Help get curriculum needs into schools, assessment support  
 Uniformity in benchmark testing

**Data Coach**

Coaching other teachers and team teaching, reaching more students  
 Conversations regarding assessment making everyone be on the same page  
 Data Presentation to staff: teachers are asking how to use the data, teachers are planning on using some of the Descartes  
 Data Wall, offered our staff a visual of what is helping with students, excited to see what changes will come in January  
 Grade Level meetings (monthly) are very focused and guided by data  
 Helping teachers to understand/use test data, students are caring and understanding  
 MCA Prep Activities, great before/after results  
 Talk #'s and look at progress, look for red flags  
 Tracking of "bubble kids" month to month via grade level meetings  
 Used data to correctly place students based on skills needed, students are learning and being successful  
 Used NWEA scores to place students in math classes, students feel successful in the correct class

**Facilitator of Change**

Contribution staff development, how has it contributed to student achievement? NWEA  
 Facilitate community meeting with Holy Rosary teachers, are their students prepared? Suggestions on the curriculum  
 Facilitating assessment in all buildings  
 Fun at staff meetings, attitude of openness contributes to willingness to "buy in"  
 Helping teachers design reading classes. Students are successful in class, behavior management goes up  
 How to test and analyze, conduit for curriculum, specialists to teachers, new math materials, reading materials  
 Integrating arts into core curriculum  
 Sharing ideas working in other buildings  
 Some teachers trying new things, data shows students are doing better  
 Staff Development, organization model for assessment across grade levels, common goals: everyone reading same sources: Daily  
 Five, Math Expressions, Calendar Math, common understanding: Why tests? What to teach?  
 Staff took the time to comment of the effectiveness of our SD days  
 When leading PLC's being able to offer new insights to change peoples mindsets

**Learner**

Staff Development in interventions is guided by research backed practices

**Mentor**

Helping another teacher learn smartboard, student lessons more visual  
 Providing a "Go-To" person, teachers get more immediate answers to questions, can adjust sooner  
 Providing feedback and assistance with classroom routines that were not effective



**Comments from Data Coaches  
Mid-Year Focus Group 1/6/2011**

Responsive classroom modeling via classroom morning meeting, all school morning meeting, and academic choice in flex groups  
 Teacher mentor, provide materials and support  
 Teacher support: helped in classroom  
 Worked with teachers who are not familiar with math curriculum to organize classes

**Professional Learning Facilitator**

Accomplishment: Staff development is guided by our Site Team and staff input. We keep it focused on student achievement, reading and math  
 Grade Level Meetings, discussions regarding interventions, offer more options for all grade levels  
 Helping engage people in professional discussions to make informed decisions  
 Introducing staff to professional literature and research  
 Sounding board for staff: personal issues, curriculum question, classroom needs  
 Staff development days, positive feedback from staff  
 Teachers communicating more

**Resource**

Helped teachers find resources to use in the classroom, students have a better variety of activities/differentiated lessons  
 Parents have responded positively regarding a pair of eyes present to oversee student success  
 Presenting to Pass program to inform parents of different assessments  
 Provide materials/web sites etc. for access to curriculum  
 Senior Remediation's for MCA, I have to look at the data but some passed  
 Set up tutoring from parent volunteer, students passed  
 Sitting on SST, being able to bring information shared from Grade Level Meeting  
 Supporting role in implementing interventions with struggling students

**School Leader**

Accomplishment: Developed a shared leadership with building administration. We have developed a student focus in making decisions.  
 Administration Assistant: Office Support: new secretary, one principal, help with bussing, child contact, organizer of Excel, special events, volunteers, visitors  
 Connection between teachers/school leaders  
 Excel facilitator, first time in one school  
 NWEA Staff Presentation, teacher awareness and use of data. One teacher already seeing the growth on test scores  
 Providing more direct/meaningful staff development on Early Release Days  
 Pushing people out of their "box", try new teaching strategies

**Supporter-Classroom**

Building trust at grade levels and across grade levels  
 Demonstrating different ways of working with kids that contribute to positive classroom climate  
 Final answers to staff questions about testing and curriculum  
 Getting Boost Up restarted in our building, enables differentiated learning  
 Offered many more resources for staff and made them readily available, technology, Think Central, helping set up classes  
 Providing support in behavioral concerns  
 Support of/Involvement in placement in Interventions, students are receiving appropriate/meaningful instruction

Comments from Data Coaches  
Mid-Year Focus Group 1/6/2011

Teachers have sought out support and verbally appreciated the concept of our being there for them
Team Teaching with a focus on specific reading strategies
The inclusion of Read 180 has provided a first hand visual of students progress in terms of reading levels
<b>Supporter-Instructional</b>
A focus on student data to support instruction has resulted in a proactive approach versus reactive!
Being able to provide data, SRI testing for individual or classes, teachers are using data to help determine placement and intervention
Excel is offered after school interventions for students in the "yellow"
Getting answers for teachers
MCA remediation, working with students on using the Reading tools and reviewing the incorrect responses, most-all but one student retaking Reading Grad test passed (of those participating in remediation)
Providing Resources (books, articles, etc) for teachers upon request or as support to topics discussed, etc.
Reading teacher: small group organization
Senior remediation, success for some?
Support teachers as they implement new math series and use of Study Island
Teachers are much more comfortable having me come in to their classrooms and co-teach or model lessons. As a result, reading and writing practices have shown improvement, and students gain
Utilizing interventions with students and teachers that make an immediate impact