



**TEACHING AND LEARNING
RESEARCH EXCHANGE**

**Instructional Strategies
and Story Experiences
for Improving
Expressive Language
in Kindergarten and
Grade Five Buddy
Classrooms**

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Executive Summary

Kindergarten and Grade Five classes have partnered over the past several years at St. Francis Community School. During the 2005/2006 school year the two classroom teachers participating in this partnership, along with the school speech-language pathologist, organized activities that required the Grade Fives to learn then give instructions/guidance to their Kindergarten Buddies. The project included seven activities based on literature experiences, tasks that required the older students' skills, buddy coaching for the Accelerated Reading Program, bully proofing dramatizations/role play, and involvement of the Grade Five project buddies in peer mediation training. The student pairings involved six Kindergarten and six Grade Five students.

Descriptive data on the effect of this strategy were obtained from observations, student reports and surveys, and pretest and post test measures from *Clinical Evaluation of Language Fundamentals - 4th Edition (CELF - 4)* and *Structured Photographic Expressive Language (SPELT- 3)* tests that were administered October/November, 2005, and May, 2006.

The key findings of this study are summarized below:

- There was significant positive change between pretest and post test results of the Kindergarten group.
- There was significant positive change between pretest and post test results of the Grade Five group.
- Student surveys indicated that students preferred activities with a specified purpose.
- Observational data were obtained that helped to explain the test results.

Research Team

This action research study was conducted by the following staff members of St. Francis Community School, Regina, Saskatchewan:

- Shawna LaRocque-Desjarlais,
- Janet Peti, and
- Kathleen Herman.

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- Jackie Peat, Vice-Principal, St. Francis Community School,
- Carol Nichol, Office Manager, St. Francis Community School, and
- Nicholas Peti for his help with organizing and representing the statistical data.

Purpose and Objectives

The Kindergarten and Grade Five teachers, along with the speech-language pathologist at St. Francis Community School, were interested in ways that middle years' buddies could be involved in learning/sharing/mentoring activities with Kindergarten students. In the view of the researchers, these activities would need to contribute to student learning, extending the expressive language skills of both Kindergarten and Grade Five participants. We believed that research would help us to determine whether increasing positive, purposeful communication opportunities changed the levels of expressive language usage and responsible, caring actions among our students.

The research topic, "Instructional Strategies and Story Experiences for Improving Expressive Language in Kindergarten and Grade Five Buddy Classrooms", sought to examine the following five objectives:

1. To improve expressive language skills in two buddy classrooms – Kindergarten and Grade Five;
2. To produce data that establish baseline and post test measures;
3. To foster a mentoring attitude in Grade Five children toward Kindergarten children;
4. To provide students with strategies to share and enjoy literature; and
5. To offer students an impetus to extend their interests through explorations in their community.

The School and Community

The following observations about St. Francis Community School may be useful in providing a background for the study:

- The school had an enrolment of 385 students in September, 2005.
- 21% of the students came from single parent households.
- Many of the households served by the school had low socio-economic status.
- Many of our students (an estimated 30-35%) had speech and language delays.
- The school had been experiencing an increasing number of discipline issues that impacted on the social climate for teaching and learning.

Literature Review

Oral language as a predictor of reading ability has been established through the use of both standardized and non standardized measures. The four measures are: phonological awareness, Rapid Automatized Naming (RAN), expressive language and receptive language (Ekins & Schneider, 2006). Reading ability may be broken into two categories, higher-level and lower-level. Higher-level skills involve comprehension abilities, while lower-level skills have to do with sounds, symbols and word recognition. Ekins and Schneider examined thirteen studies to determine which oral language measures are more likely to influence higher-level and lower-level reading abilities. Of the thirteen studies, only five examined the expressive language measure as predictor of reading ability.

Mean length of utterance (MLU) showed predictive lower-level value when administered to children at 4 1/2-5 years of age. Replication of the findings for this measure would be very beneficial because it is easy to test for, in an everyday setting, and has early predictive value. Narrative production, which the authors identify as a bridge between oral and written language, showed predictive high-level value when administered to children aged four and a half years old. Expressive language alone or combined with other oral language measures has received limited study. Some of the studies used small samples and some perhaps erred in the age-groupings of the samples. Early identification and intervention of reading difficulties may be improved through information gained from oral language assessment. The predictive value of oral language measures needs further investigation.

Kirkland and Patterson (2005) state: “The development of oral language is facilitated through a carefully planned environment that promotes thoughtful, authentic opportunities to engage in conversations.” (p. 392). They note the idea that adults who share in the teaching of language should be facilitators rather than transmitters of ideas and conversation. Their article also identifies explicit and implicit instruction as necessary components of oral language learning. The article describes the ideal classroom environment as a “Mecca of language events” (p.392), i.e., one that provides a range of purposeful, hands-on experiences.

Kirkland and Patterson (2005) mention families, parents, caregivers, and teachers, as important in facilitating children’s language development. The authors’ stated connection between literature and conversation and an implied ensuing action provides a framework for developing an instructional model. Across-grade/age groupings is not included, within the above noted context, in this educational reference.

Literature (Tetreault, 2003) that identifies the value of multi-aged groupings helps to fill in the gaps within the framework. Lo and Cartledge (2004) utilized a whole-class peer tutoring model that was originally designed for academic concerns to investigate the use of peer tutoring to encourage interdependent and cooperative learning. The authors’ state: “Given the critical importance of behavior adaptation to children’s school and later life success, the social benefits of peer tutoring deserve close scrutiny” (p. 237). They point out that further investigation of peer tutoring components and procedures would be beneficial.

Lo and Cartledge (2004) note that encouragement of social skills and positive interactions in instructional practices increased collaborative efforts among same-aged peers. Staarman et al (2005) identify interactions that were beneficial for learning while students worked on assigned tasks that monitored elaboration and collaborative tactics. Quicke (2003) argued that interacting productively with the teacher is a key component to students learning how to learn. Neither Staarman et al or Lo and Cartledge stated a connection with authors such as Quicke to develop the notion that peer tutoring becomes a reciprocating process whereby the students in turn become the teachers to other students. There is an absence of the word, 'teacher', in the literature that seeks to describe the roles that students undertake in the context of everyday classroom experiences.

Wright and Kersner (2004) discuss short-term projects, such as those found in the collaborative efforts between classroom teachers and speech-language therapists. Their article identifies their speech language therapists as resource people from a health department as opposed to members of a school system's support services. The article outlines some of the issues facing a short-term project. For example, the provision of language services had a slow start, partly due to school staff who felt ill at ease with their newly acquired language intervention roles and responsibilities. The short-term project allowed for time to assess students, offer services, exchange information and modify classroom practices to meet identified language needs of students, but it did not allow time for ongoing feedback and evaluation between teachers and therapists. The short-term project approach tended to leave school staff unsure of their actual effectiveness in the therapeutic language supports they provided. In addition, it did not allow the teachers to reconcile the time needed to implement project activities and the time needed to fulfill curriculum requirements.

Description of the Program

The 19 students in one afternoon Kindergarten classroom and the 26 students in one Grade Five classroom were paired as big and little buddies in October. It should be noted that the school had lost a classroom/teacher due to a drop in enrolment and this loss had affected the Grade Five class involved in the study. About half of the little and big buddy pairings had to be redone.

The research project involved six Kindergarten and six Grade Five children for a total of twelve participants. Two children involved in the research project transferred from the school late in the fall and two more children were brought into the study to maintain the group of twelve. The reasons for selecting a small group rather than the whole class included the following:

1. A small group was expedient in terms of receiving the necessary permissions from parents for the research participation of the students;
2. Time management for testing was easier and the cost of testing was lower; and
3. It was easier to manage time for follow-up and the collection of other data.

The buddy pairings were made by finding a good match based on academic, language and personality characteristics. The literature (Gay, 1992) identifies our method of selection as judgment or purposive sampling. The six Kindergarten children were believed to have some expressive language needs that were representative of others within the Kindergarten age-group. The Grade Five participants were chosen because of their interest in 'buddying-up' and their caring/encouraging manner. Academic ability was also considered because we expected some additional time out of the classroom may be required for the students involved. A few of the children had been identified by the research team as quiet individuals who would likely benefit from language support and/or the skills taught for a leadership role. Although some bias was inherent in this sampling strategy, the researchers believed that the project population samples were representative of sound classroom practices when making little/big buddy pairings.

The project was then outlined in greater detail to both groups, and the Grade Fives were asked whether they were interested in assuming the leadership role within the pairings.

Our timeline for establishing a baseline through testing and the choice of a starting project activity changed because of the change in buddy pairings and the late start-up time of the project. Our classes had already buddied up previous to the closing of a classroom, and some of the Kindergarten children were clearly taken aback by the losses of their first big buddies. It was very important to re-establish the buddy relationships for all the children within both classes. The buddy pairings for the classes were re-established informally by two afternoon visits that involved reading, making puzzles and pairing the buddies for a recess. The pairings were formalized during a whole school assembly in which the Grade Five big buddies presented their Kindergarten little buddies with a certificate of welcome and a t-shirt.

By this time written parental permissions had been sought and received for the research participants.

The speech-language pathologist had completed pretesting of expressive language skills by the end of November, 2005. Baseline data for both the Kindergarten and Grade Five project participants were determined. The activities chosen were mentoring-type activities in which the Kindergarten children would need an older child's assistance to carry them out. The Grade Five students were first coached in questioning techniques, then encouraged to use them to promote shared problem-solving and shared learning outcomes.

The first activity carried out in each of the classrooms within the school was chosen to make explicit and publicize the big buddy role as being active within a mentor/helper relationship. The activity was apple taste tests. The Kindergarten children clearly needed help to cut up, sort, count and deliver the apple samples to each class. The big buddies also helped the children with tallying the results. The Grade Five buddies had to be there physically, use an abundance of language, and actively do something with their little buddies. The project teachers' role was to help the big buddies guide rather than tell or take over the learning process for the little buddies.

John Quicke (2003) talks about students being primed to use learning awareness within their classroom interactions. Facilitating active learners, peer teaching strategies and student reflection within a process benefits both parties in the peer-as-teacher and peer-as-student relationship. We felt the little/big buddy pairing provided all the advantages of group learning without the barriers of issues common to same-age peer culture. Each of the Grade Fives was an expert in the eyes of their Kindergarten buddy.

The second project activity reflected the study of shapes in the Kindergarten curriculum. The Grade Five classroom teacher had read a story to her class that was accompanied by a tan gram activity. The assembled tan gram represented one of the story characters. The Grade Fives then chose a different story with a corresponding tan gram to assemble and shared the story with their kindergarten buddies, and worked together with them to assemble the tan gram. The buddies had several stories to choose from and the buddy pairs were encouraged to work on a few more stories while time permitted.

The first and second activities were characteristic of most of the subsequent activities that were part of the research project in that the whole class also did the activity; however, the project group received additional instructions from either the Kindergarten or the Grade Five teachers prior to and during the activities. Instructions from the project teachers included identification of the project objectives on that day and sometimes included ideas for specific buddy pairs to focus upon. The word 'intervention', which is used later in this paper during discussions of the research results, refers to the additional and small group instruction given to the Grade Five project participants and through them, the receipt of this instruction by the Kindergarten project participants. In using this approach, the researchers acknowledged that they were not carrying out an experimental study.

Methodology

DATA COLLECTION

Data were gathered by the researchers through testing, observations, interviews and surveys.

TESTING

The school speech-language pathologist administered two language tests, the **Structured Photographic Expressive Language (SPELT- 3)** for the Kindergarten students and the **Clinical Evaluation of Language Fundamentals – 4th Edition (CELF – 4)** for the Grade 5 students. The tests were administered in November, 2005, for the pretest and again in May, 2006, for the post test.

SPELT - 3

The purpose of the *SPELT - 3* was to identify children who perform significantly below their age-equivalent peers in expressive grammar, word order and grammatical morpheme (word ending) development. The test was for children 4.0 through 9.11 years of age. The test elicited responses individually from a child through structured visual and auditory stimuli. Each test item included a visual stimulus of a colour photograph of an everyday situation or activity. The auditory stimuli consisted of brief statements or questions made as the photo was shown.

Age-equivalent data included in the test reflected the child's performance on one measure of expressive language at one point in time and needed to be interpreted with caution. Percentiles were derived from the test scores. "Percentiles show the percentage of the age group in the standardization sample that received scores equal to or below a particular raw score" (Dawson, Stout, & Eyer, 2003, p. 35). A percentile rank of 10 means 90% of the standardization sample scored at or above the child's score, making fewer errors in grammar or syntax.

CELF – 4

The *CELF - 4* was an individually administered clinical tool for the identification, diagnosis, and follow-up evaluation of language and communication disorders in those who are 5-21 years old. The test provided an overall measure of expressive language skills through the Expressive Language Index. Calculated using the student's age, the student's score was derived using subtests on formulating sentences, recalling sentences and word classes.

The CELF – 4 provided age-based percentile ranks for subtest scores and index scores. Percentile ranks should not be confused with the percent of correct answers on a test. Percentile ranks indicated a student's standing relative to others of the same age in the norm group. Percentile ranks reflected points on a score scale based on the standardization sample.

OBSERVATIONS

The focus of the observations carried out with each activity was varied. For example, the observations for the second activity focused on the frequency of the exchanges between each big and little buddy pair. Other observations included degree of student comfort, interest and involvement in the activity and the use of language between the buddy pair and with other buddy pairs, e.g., the conversations, explaining and questioning that took place. For each of the observations, a numerical value of one, two or three was given to indicate level of engagement and involvement during the activity.

INTERVIEWS

The interview was used mainly to clarify information gleaned during observations. For example, the interview for the first activity determined whether the buddies recalled each other's names and their enjoyment of the activity.

SURVEYS

Some of the activities were followed by a checklist survey to determine both big and little buddies' comfort with, enjoyment of, and opinions of the experience.

VARIABLES AFFECTING THE STUDY

In collecting the data on the effect of the buddy activities, the researchers realized that their research was affected by several methodological limitations:

- Data collection necessarily varied with each activity.
- The researchers were able to carry out fewer activities as part of the project than they had hoped.
- Some children were being seen weekly by the speech-language pathologist or speech-language assistant, while others were not. This difference in the students' experiences may have affected the outcomes of the testing.
- A student's involvement with the speech-language team meant that a weekly folder went home with the student for home practice. This practice likely affected the impact of our activities as well.
- The findings from this research are based on a small sample and are not generalizable.

TIMELINE

June 2005	The general format and timeline of the study were written out and types of activities were discussed and listed. The Grade Five teacher was transferred to another school. Another Grade Five teacher was asked to participate in the project.
Sept. 2005	A decrease in school enrolment resulted in restructuring of the Grade Five classrooms.
Oct. 2005	Restructuring of the Grade five classrooms was finalized and buddy pairings were made. Letters requesting permission for research participation were sent home with student participants. Project staff met to plan out year-long activities and determine roles and jobs within the project. A carpenter was hired to cut and assemble birdhouse kits for the spring project activity.
Nov. 2005	As permission letters were received, testing was done to establish a base line of expressive language levels for the research participants. Parents of project participants were given a project update during regular parent teacher interviews.
Dec. 2005	The first project activity was completed and the second activity continued over a three week period.
Jan. 2006	Project staff met to work on scheduling additional and ongoing project buddy visits. The six big buddies began peer mediation training
Feb. 2006	The big buddies began to help the little buddies in the Accelerated Reading Program. The buddies carried out "The Great Teddy Graham Taste Test" school-wide.
March 2006	Work on the program's major project, building birdhouses, began.
April 2006	Butterfly larvae were ordered for the final project activity.
May 2006	Author study was carried out with a corresponding buddy activity. The six big buddies began their playground peer mediation duties. The butterfly larvae arrived on a Teacher Professional Development day during a four-day break for students; therefore the buddy activity to separate the larvae into individual containers could not be done. Post testing was done by the speech-language pathologist.
June 2006	Project participants met to examine the findings of the post test and determine roles for writing up the report.
July/Aug. 2006	A final report was written.

The Results

1. LANGUAGE TEST RESULTS

Results of the *SPELT - 3* and *CELF - 4* tests provided quantitative data on which we could carry out data analysis in line with accepted research practices. The information was useful in considering whether our instructional practices made a difference in our student's acquisition of expressive language skills.

SPELT-3 SCORES FOR THE KINDERGARTEN STUDENTS

The **pretest** scores of *SPELT - 3* (Kindergarten) reveal the following:

Kindergarten Student	Age Equivalency	Percentile Rank
1	Below 4 - 0	28
2	4 - 0 to 4 - 5	34
3	4 - 0 to 4 - 5	45
4	Below 4 - 0	10
5	Below 4 - 0	18
6	5 - 6 to 5 - 11	52

The **post test** scores reveal the following:

Kindergarten Student	Age Equivalency	Percentile Rank
1	5 - 0 to 5 - 5	40
2	5 - 6 to 5 - 11	32
3	5 - 6 to 5 - 11	62
4	5 - 0 to 5 - 5	44
5	5 - 6 to 5 - 11	62
6	6 - 6 to 6 - 11	57

SPELT - 3: Kindergarten Pretest and Post Test

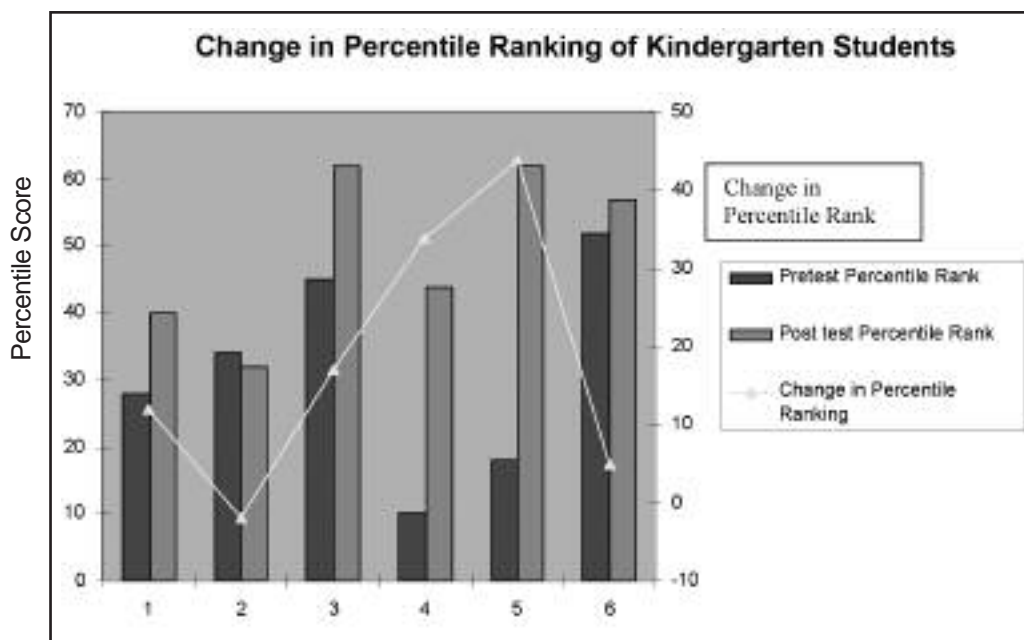
Kindergarten Student	Pretest Percentile Rank	Post test Percentile Rank	Change in Percentile
1	28	40	12
2	34	32	-2
3	45	62	17
4	10	44	34
5	18	62	44
6	52	57	5

The range of the pretest and post test scores of and between each Kindergarten student required some interpretation. The data for student number 2 had to be considered in terms of the following: 1) the student's ESL background, 2) the 'year-plus' age category jump between testing periods, and 3) its relationship to observational data, i.e., the buddy score discussed later in this paper, which indicates a less successful buddy pairing. The most substantial percentile change, which occurred with students 4 and 5, may be considered in terms of their late-in-the-year birthdates, the impact that maturity has on school readiness, and the benefits of 'time' in early schooling experiences.

A t test of paired data (Kindergarten pretest and post test) identified a significant value of .05. The t test value indicates that the study group's expressive language scores improved, compared to their norm-referenced peers, as a result of the intervention. The statistical results support our classroom practice of careful buddy pairing and purposeful buddy activities to increase Kindergarten children's expressive language skills. Since the statistical significance is good, the results may be generalized to other populations despite our small sample size.

Participation in the Accelerated Reading Program (AR), which involved bimonthly buddy reading times, was included as one of our research project experiences. It is interesting to note that students 3, 4 and 5, who showed the greatest change in pretest/post test scores, received more Accelerated Reading time with their big buddies in April than did the other project Kindergarten students. A shortcoming in our research methodology that would likely affect the test results is that students did not receive identical buddy time. The reality of classroom experience is that the teacher capitalizes on opportunities for increased student learning. Additional buddy time was available for students 3, 4 and 5, so it was used.

The mix of personalities in the buddy pairings may also have impacted the results. We matched students with the expectation that students who seem more socially at ease would help to increase the involvement of their buddy. For example, Kindergarten student 2 was a very outgoing child whereas his big buddy was shy. Kindergarten student 6 was shy and the big buddy was outgoing. We learned that this approach is not necessarily effective for each child.



CHANGE IN PERCENTILE RANK OF KINDERGARTEN STUDENTS FROM PRETEST TO POST TEST

Kindergarten Student	Change in Percentile Rank
1	12
2	-2
3	17
4	34
5	44
6	5

CELF – 4 RESULTS FOR THE GRADE FIVE STUDENTS

The results of the CELF – 4 Grade Five pretest and post test are given below:

Grade Five	Pretest	Post Test	Percentile Rank Change
1	53	70	17
2	3	19	16
3	45	70	25
4	70	75	5
5	86	91	5
6	75	88	13

A reliability coefficient of .01 was obtained from a t test conducted on the pretest and post test results.
p = .05

The grade five big buddies' pretest and post test results show a very strong correlation between the test scores and the intervention. The excellent reliability coefficient of .01 tells us that there is a 99% chance that the 'positive' change in scores is due to intervention. That is, the grade five project participants expressive language scores improved, compared to their norm-referenced peers, because of the project activities. The project activities required the project big buddies to assume two roles: 1) train or help the other grade five buddies as needed, and 2) successfully communicate and carry out the activities with their little buddies.

While our team didn't find literature that used across-age models, we were able to use peer tutoring studies (Lo and Cartledge, 2004; Staarman et al, 2005) to interpret our findings. Increased roles of responsibility have a positive impact on same-age peer dynamics. Therefore increased roles of responsibility toward younger schoolmates, such as were needed for the buddy activities, should also have a positive impact. Embedded in the big buddy role is communicating for both relationship and instructional purposes. We observed in big buddies a lot of organizing, taking charge, guiding and pondering actions and heard from them questioning, explanations, encouragement and debate. The transition from teacher coaching to peer coaching and then to buddy teaching was made with positive effects according to our data.

The change in the percentile rank of the Grade Five students from their pretest and post test scores on the CELF – 4 test is shown below:

Grade Five	Percentile Change
1	17
2	16
3	25
4	5
5	5
6	13

2. OBSERVATIONS AND SURVEYS

While the tests provided quantitative data, the action research project enabled us to look at other influences of the student outcomes through the use of soft data. Charted below are several types of qualitative data collected for the main activities.

	Observations	Interviews	Surveys
Apple Taste Test	X	X	X
Tan Gram Story/Activity	X	X	
The Great Teddy			
Graham Challenge	X		X
Teddy Bear Cookie			
Barrier Game	X		X
Building a Birdhouse	X		X
Barbara Reid Story and			
Modeling Clay Activity	X	X	X
Accelerated Reading	X		Test Scores X

OBSERVATIONS

Observations revealed the progression of the buddy relationship. Simple things like eye contact and physical proximity needed to develop in the buddy pairings before substantive changes in the use of language would occur. In one of our buddy pairs the comfort zone developed to a certain degree but the interest in one another was not there. The Kindergarten child was frequently observed to be watching other groups, and at times, simply leaving the big buddy. Combining the buddy pairs pleased the little buddy; however, he still ignored his big buddy, who then seemed at a loss. A non-project Kindergarten child would then be paired with big buddy No. 2 so that the mentorship/instructional duties would continue. It should be noted that spontaneous collaboration was always permitted and we encouraged combined pairings to encourage discussion and exchanges of information.

The No. 2 buddy pair was interesting in another way. The Grade Five student generally lacked confidence in using expressive language skills. The student was coached by the speech-language pathologist to break down and organize the information needed to carry out the activity with the little buddy. The student rehearsed the steps and 'needed' to follow the plan during the actual buddy event. This need may be why the little buddy, who is quite spontaneous, had difficulty within this pairing, while the smiles of other Kindergarten children paired with buddy No. 2 indicated their enjoyment of the step-by-step approach. The learning outcome of this pairing, as indicated by the chart and graphs, show the big buddy made significant gains while the little buddy made no gains. Of prime importance, we believe, was the insight into learning how to learn that big buddy No. 2 gained through the project. However, the observational data was needed to understand the statistical outcome.

Observations made during the activities also enabled us to track the buddies' level of engagement with each other. With each observation, a numerical value was given to the level of engagement of the individuals involved as shown below:

- Score of 1 meant minimal engagement with one another and/or low level of involvement with activity
- Score of 2 meant some engagement with one another and/or some level of involvement with activity
- Score of 3 meant active engagement with one another and high level of involvement with activity

Tabulation of the individual scores led to a total which became the Buddy Score. The table given below shows the Buddy Scores for each buddy pairing by activity:

Activity	Buddy Pair 1	Buddy Pair 2	Buddy Pair 3	Buddy Pair 4	Buddy Pair 5	Buddy Pair 6
Apple Taste Test	2	2	2	3	2	2
Tan gram Story and Activity	2	1	3	2	3	2
Teddy Graham Taste Challenge	3	2	3	3	3	3
Teddy Graham Barrier Game	3	2	3	3	3	3
Building Birdhouses	3	1	2	3	3	2
Story and Modeling Clay Activity	2	3	2	3	3	3
Accelerated Reading	2	2	3	3	3	2
Buddy Score	17	13	18	20	20	17

SURVEYS

The surveys provided information for us on the nature of the experience for the children.

As with any school experience, safety was a paramount concern throughout the project. Safety goggles and lightweight hammers were used. Two of our survey respondents felt building a birdhouse (using hammer and nails) was too dangerous for the Kindergarten buddies. Although the two respondents rated the overall experience as worthwhile, the activity must have caused them some angst.

Research team observations of the activity were perhaps biased; we saw both delight and focused concentration and what we would consider acceptable levels of frustration for a challenging task. Project participants seemed extremely excited to 'get to use' hammer and nails and enthusiastically helped non project buddy pairs with the task. The anonymous surveys provided authentic student input and enriched our descriptive data.

The student surveys were anonymous; therefore data were used to obtain impressions of and thoughts on the project activities and experiences. Although little buddy impressions were collected for two of the activities, they are not included in the totals given below. The totals represent the six big buddies' impressions of five activities and indicate the level of satisfaction/success for each of the activities according to our Grade Five participants.

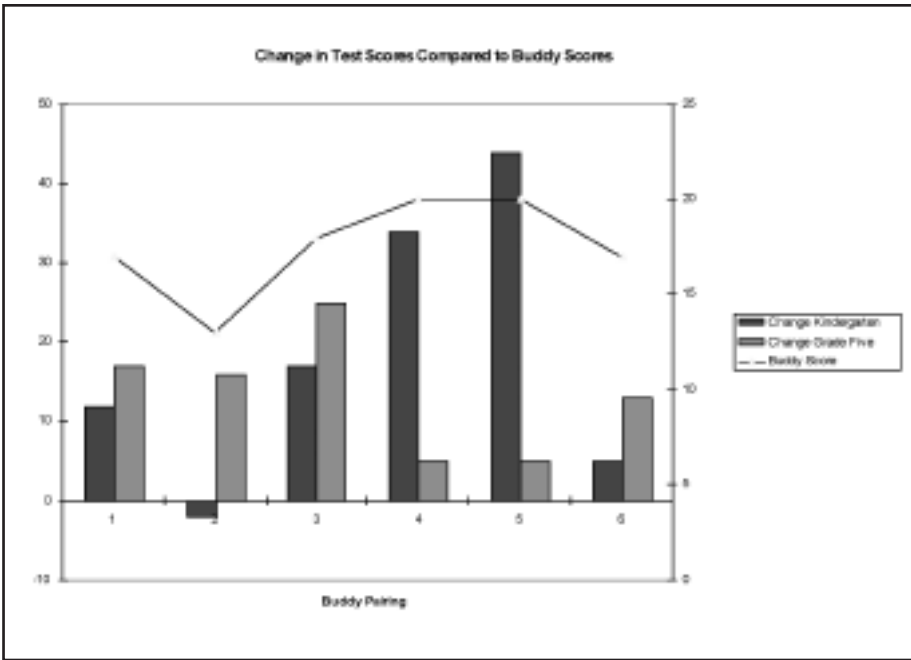
Activity	Student ratings of each activity	Total score of each activity
Apple Taste Test	3 scores of 2 3 scores of 3	15 out of a possible 18
Teddy Graham Taste Test	2 scores of 2 4 scores of 3	16 out of a possible 18
Teddy Bear Cookie	1 score of 1	
Barrier Game	2 scores of 2 3 scores of 3	14 out of a possible 18
Building a Bird House	3 scores of 2 3 scores of 3	15 out of a possible 18
Story and Modeling Clay	6 scores of 3	18 out of a possible 18

3. COMPARISON OF TEST SCORES TO BUDDY SCORES

The table given below compares the students pretest and post test scores to the buddy scores drawn from observations (see section 4 on Qualitative Data):

Buddy Pairs	Change Kindergarten	Change Grade Five	Buddy Score
1	12	17	17
2	-2	16	13
3	17	25	18
4	34	5	20
5	44	5	20
6	5	13	17

For each pair of buddies, the students' test scores compared to their buddy scores as shown in the following graph:



Conclusion

Our project did not ask a research question; rather, *Instructional Strategies and Story Experiences for Improving Expressive Language in Kindergarten and Grade Five Buddy Classrooms* was an action research project gathering descriptive data. The freedom and, ultimately, the value of an action research project allowed us to incorporate statistical information into a descriptive account of our classroom practices. The statistical data supported our belief that planning and organizing purposeful buddy activities promotes improved expressive language skills. The data supported the use of instructional strategies that engage children as active learners. The statistical data also supported listening, saying, demonstrating and doing as worthwhile components of instructional lessons for both Kindergarten and Grade Five students. Although the results from our study of a small sample of students supports extending the role of Grade Five students to act as teachers within multi-aged student pairings, the generalizability of our findings needs further investigation.

Our research project indirectly tested a model gleaned from the writings of Kirkland and Patterson (2005); Lo and Cartledge, 2004; Quicke, 2003; Tetreault, 2003; Addison Wesley, Longman, 1994. Defining the Grade Five children as both learners and teachers of language, and calling them big buddy mentors, required the addition of another level or cycle to models found in the literature. A simple instructional model with a relationship dimension became our conceptual model for creating a language rich environment that met the needs of Kindergarten and grade five children. Further review on what peer mentoring and peer tutoring means or looks like would have been helpful to our study.

The literature reviews did not identify the automatic self-checking scenario built into the big buddies teaching experience with their five year old little buddy. The big buddy had to explain and demonstrate in order for the little buddy to follow along, join in and complete the activities. If the little buddy was having difficulty the big buddy would have to rethink, reorganize, rephrase and redo 'their' instructional strategies. Our grade five project participants knew better than to just talk louder!

Our responsibility as teachers making informed decisions meant including practices within the research project that supported both Kindergarten and grade five student oral language development. The literature generally cited studies that looked at same age peers with target populations of students at risk paired with academically strong students. We believe our research findings suggest that student learning improves outside the more traditional peer groupings. The weaker students became equal to their same age peers when they too assumed the role of 'expert' to their young buddies. Learning outcomes can be improved by across-grade pairing of students while supporting increased levels of responsibility with communication and leadership skills. The project delivered a "mecca of language events" (Kirkland & Patterson, 2005, p.392) to the benefit of all the children.

What we take away from the research project experience is the value of 1) carefully planning the learning environment through collaboration with colleagues, and 2) recognizing student strengths. Incorporating others' insights, knowledge and interests ultimately results in increasing the likelihood of improved student outcomes.

Bibliography

- Allen, L. (1994). *Oral Language Resource Book*. Pearson, Toronto
- Dawson, J. I. Stout, C. E. & Eyer, J. A. (2003). *Structured Photographic Expressive Language Test* (3rd ed.). DeKalb, IL. Janelle.
- Ekins, E & Schneider, P. (2006). Predicting reading abilities from oral language skills: A critical review of the literature. *Journal of Speech-Language Pathology and Audiology*. 30(1), 26-45
- Gay, L.R. (1992). *Educational Research* (4th ed.). Toronto: Maxwell Macmillan.
- Kirkland, L. D. & Patterson, J. (2005). Developing oral language in primary classrooms. *Early Childhood Education Journal*, 32(6), 391-395
- Lo, Y., & Cartledge, G. (2004). Total class peer tutoring and interdependent group oriented contingency: Improving the academic and task related behaviors of fourth-grade urban students. *Education and Treatment of Children*, 27(3), 235-262.
- Quicke, J. (2003). Educating the pupil voice. *Support for Learning*, 18(2), 51-57.
- Semel, E. & Wiig, E. H. (2003). *Clinical Evaluation of Language Fundamentals* (4th ed.). San Antonio: Harcourt.
- Staarman, J. K., Krol, K., & van der Meijden, H. (2005). Peer interaction in three collaborative learning environments. *Journal of Classroom Interaction*, 40(1), 29-39.
- Saskatchewan Education. (1991). *Instructional Approaches: A Framework for Professional Practice*.
- Tetreault, L., et al. (2003). *Project "X" (Excellence) - Phase III*. Teaching and Learning Research Exchange - Project 77. Dr. Stirling McDowell Foundation for Research into Teaching, Saskatoon, SK.
- Tetreault, L. (2001). *The last six years*. Paper presented at Community Schools Conference, Regina, SK.
- Wright, J. A., & Kersner, M. (2004). Short-term projects: the Standards Fund and collaboration between speech and language therapists and teachers. *Support for Learning*, 19(1), 19-23.

Appendix A: Permission Letter

Dear Parents/Guardians;

This letter is to ask your permission for your child, _____,

to participate in an education research project.

Mrs. Peti, Kindergarten, and Mrs. LaRocque-Desjarlais, Grade 5/6, along with Ms Herman, Speech-Language Pathologist, have been awarded a research grant from the Dr. Stirling McDowell Foundation for Research into Teaching.

The purpose of the research is to see if older children helping younger children on specific projects with specific instructions can help to improve overall expressive language skills.

Six Kindergarten children along with their Grade Five buddies will be assessed on their expressive language skills before we begin our project activities. During the school year, the children will participate in field trips and story times whereby the older children help and give instruction to the Kindergarten children. In April the six Kindergarten children and the six Grade Five Buddies will be reassessed to see if significant expressive language progress has been made. All of the afternoon Kindergarten children and all of Mrs. LaRocque-Desjarlais' class will be participating in the research project activities; however, we have chosen only twelve children for assessment in order to be thorough in our research methods.

The project staff have the responsibility to 1) make the results of your child's assessment available to you; 2) keep the results of the assessments confidential except for the reports to the Dr. Stirling McDowell Foundation for Research into Teaching and for usual teaching dialogs with school support staff/resource persons; 3) allow you to withdraw your child from the study **at any time**; 4) suggest resource people should you have any questions about the research project.

Yours truly,

Mrs. J. Peti
Kindergarten

Mrs. LaRocque-Desjarlais
Grade Five/Six

Ms. K. Herman
Speech-Language Pathologist

Please sign below and return this form to your child's teacher by October 26, 2005

I _____, give permission for my child,

_____, to participate in the research

Project at St. Francis Community School called *Instructional Strategies and Story Experiences for Improving Expressive Language in Kindergarten and Grade Five Buddy Classrooms*.

Expressive Language Research Project

Appendix B: Student Survey Forms – Example for Little Buddies

LITTLE BUDDY STUDENT SURVEY FORM

Type of Activity: **Teddy Bear Barrier Game**

1. Had you played a barrier game before this Teddy Bear Activity?
YES NO
2. Did you understand the instructions well enough to play the game with your big buddy.
YES NO
3. Did you enjoy playing the game with your big buddy?
YES NO
4. Do you think your big buddy enjoyed playing the Teddy Bear Barrier Game with you?
YES NO
5. Was your big buddy able to help you when you had trouble playing?
YES NO
6. How well did your big buddy explain how to play the Teddy Bear Barrier Game?
Really well Okay Not very good
7. Was the game easier for you to learn the second time that you played?
YES NO
8. How well did your big buddy explain how to play the second time?
Really well Okay Not very good
9. Do you think barrier games are pretty easy to play?
Very easy Pretty easy Hard to play
10. How likely is it that you would now play a barrier-type game on your own?
Would for sure Probably would Would not
11. Was this a good big and little buddy activity?
YES NO

Expressive Language Research Project

Appendix C: Student Survey Forms – Example for Big Buddies

BIG BUDDY STUDENT SURVEY FORM

Type of Activity: **Teddy Bear Barrier Game**

1. Had you played a barrier game before this Teddy Bear activity?
YES NO
2. Did you understand the instructions well enough to play the game with your little buddy?
YES NO
3. Did you enjoy playing the game with your little buddy?
YES NO
4. Do you think your little buddy enjoyed playing the Teddy Bear Barrier Game?
YES NO
5. Did your little buddy understand your directions?
YES NO
6. How well did your little buddy understand your directions?
Very well Okay Had trouble
7. Was the game easier for you to teach the second time that you played?
YES NO
8. How well did your little buddy understand your directions the second time that you played?
Very well Okay Had trouble
9. How confident do you feel about teaching another barrier game?
Very confident Somewhat confident Not confident
10. How likely is it that you would now play a barrier-type game on your own?
Would for sure Probably would Would not
11. Was this a good big and little buddy activity?
YES NO

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