

**EVALUATION OF THE  
LEARNING LANDSCAPE PROJECT**



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March 4, 2003

# EVALUATION OF THE LEARNING LANDSCAPE PROJECT

## EXECUTIVE SUMMARY

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### PROJECT BACKGROUND

The Learning Landscape program sponsors the design and construction of innovative, multi-use playgrounds that are custom fitted to the needs and desires of local communities. This program has been guided by a public-private partnership and directed by graduate landscape architecture students from the University of Colorado at Denver, College of Architecture and Planning.

This report examines the experience of nine elementary schools within the Denver Public School system where Learning Landscape playgrounds have been installed since the Fall of 2000. All of these nine schools are located in inner-city locations where poverty is high. Within these schools, an average of 92 percent of all students qualify for the free or reduced lunch program. 1

Key objectives of the playgrounds have been to:

- Establish a community focal point
- Offer educational tools and
- Improve recreational opportunities.

At an average cost of \$425,000, the completed playgrounds include: new recreation equipment, outdoor classrooms, shade structures, gardens and interactive areas.

### EVALUATION APPROACH

This evaluation was designed to collect information from multiple sources using a variety of data collection techniques. Because the playgrounds are relatively new, the findings are preliminary and yet underscore the positive benefits of the playgrounds recognized by school principals, teachers, students, parents and members of the surrounding communities.

A data tracking system is recommended to monitor the broader impacts of these playgrounds over time. Areas where benefits are expected to occur include: attendance, safety episodes, suspensions and vandalism repair. Changes in reading scores should also be tracked to determine the extent to which the playgrounds have an impact on student performance.

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1 In addition to the nine elementary schools evaluated in this report, Learning Landscape playgrounds have been or are being constructed in 17 additional elementary schools, all of which are also located in low-income neighborhoods.

## **EVALUATION FINDINGS**

### ***Interviews with Principals***

Through face-to-face interviews, principals at each of the nine participating elementary schools indicated that they are uniformly enthusiastic about the playgrounds and believe that these enhanced play areas help students to be more ready to learn, to interact in more socially acceptable ways and to be more connected to their schools. The principals also believe that through the playgrounds, community members have become more involved with the schools, by helping to construct the playgrounds, using the facilities in after-school hours and more generally demonstrating a greater pride in the school and the community as a whole.

Positive benefits of the playgrounds were reported in the following areas:

- Reduced disciplinary and safety problems
- Improved student behavior
- Preliminary use of outdoor learning curricula
- Improved student attitudes toward school and increased readiness to learn
- Increase parental involvement and
- Enhanced community pride and use of the playgrounds as “green spaces.”

### ***Teacher Surveys***

Surveys were distributed to teachers in each of the nine schools. Fifty-six percent of the teachers (or 123) completed the surveys and confirmed that positive improvements had occurred in the schools in the areas of school/community environment, student behavior/performance, and parent/community involvement, as detailed below.

Areas where the most evident benefits of the playgrounds were reported were:

#### **SCHOOL/COMMUNITY ENVIRONMENT**

- The playground has improved the beauty of our community. (97% agreed)
- The playground provides areas that are developmentally appropriate for children to play. (90% agreed)
- The playground has created a green space in the community. (86% agreed)

#### **STUDENT BEHAVIOR/PERFORMANCE**

- The new equipment promotes more creative play. (80% agreed)
- Children are more physically active during recess. (80% agreed)
- Students interact more with their peers during recess. (75% agreed)

#### **PARENT/COMMUNITY INVOLVEMENT**

- Parents participated in building the playground. (79% agreed)
- Local community businesses contributed to the playground. (78% agreed)
- The community has a sense of pride in the playground. (77% agreed)

### ***Student Focus Groups***

Six focus groups were held with 1<sup>st</sup>, 3<sup>rd</sup> and 5<sup>th</sup> graders in three of the Learning Landscape schools. A total of 74 students participated in these groups. The last group was conducted in Spanish. All of the students were very pleased with their new playgrounds and detailed their favorite types of equipment and the new games they enjoyed playing.

Students also recognized that the new playgrounds were safer and allowed them to spend more time with their friends in physically active ways. They reported that they used the playgrounds during after-school hours and felt proud about having the “best” playground in the area. Several children also indicated that they had a sense of ownership of the playgrounds and wanted to keep them clean and un-littered.

### ***Community Surveys***

Surveys were sent home to the parents of 4,639 students in the Learning Landscape schools. Of these, 26 percent (or 1,189) were returned. Nearly three-quarters of the parents (or 73%) reported using the playgrounds and roughly a quarter (or 23%) had participated in their construction. Close to half of the parents responding (or 43%) say that they are more involved with other activities that involve the playground than they were before.

Specific benefits of the playgrounds as perceived by the parents were:

- The community has a sense of pride in the playground. (77% agreed)
- The playground has fostered a stronger sense of community identity. (72% agreed)
- The playground is a focal point for the community. (68% agreed)
- The community has developed a sense of ownership for the new playground. (66% agreed)
- The connection with the community is stronger because of the construction process. (62% agreed)

### **OTHER IMPACTS**

Since most of the Learning Landscape playgrounds have been in place for less than one year, longer term impacts on student behavior and performance cannot yet be observed. In other communities with similar playgrounds, students have been found to be more attentive after having had play opportunities, to be more willing to attend school and to have improved test scores. 2

The principal of one Learning Landscape school has reported improved attendance, a drop in safety incidents, a lower number of disciplinary infractions and some improvement in test scores. While similar data have been compiled for the nine Learning Landscape schools examined for this report, overall trends in these areas are too early to observe.

To track the longer term impacts of the Learning Landscape playgrounds, information on these and other potential benefits should be monitored through a data tracking system. Information on student behavior, student performance and parent satisfaction are all currently collected by the Denver Public Schools and can be compiled to examine how the Learning Landscapes improve the environment for learning and the response of students, their parents and the community to the playgrounds. For example, in some schools, vandalism reports have decreased. In others, parents have volunteered that they feel a stronger sense of connection to their children’s school. Students report having more pride in their school. All of these factors can influence the “culture of learning,” a phenomenon that over time has the potential for improving student behavior and performance. Tracking this information on a yearly basis will help to document the extent to which these changes are occurring.

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2 Lewis, M. (2001) Facility conditions and student test performance in the Milwaukee Public Schools. *Council of Educational Facility Planners International.*

## CONCLUSION

The findings of this evaluation report confirm that the Learning Landscape playgrounds are widely recognized as providing an array of benefits by creating more attractive “green spaces” at the schools, safer playground environments and landscapes that cause community members to have pride in their schools.

Principals and teachers report positive benefits from the playgrounds because children are more active and creative during their recess periods. Since the playgrounds were designed to serve as outdoor classrooms, they also offer opportunities for outdoor and experiential learning, particularly as more schools adopt appropriate curricula and use the playgrounds in this manner.

Other playground benefits reported include the value of encouraging children to be more ready to learn because they have been more physically active and to feel more connected to their schools. Within this report, students expressed their pride in their new playgrounds. Teachers and principals also confirm that student behavior has improved with fewer disciplinary problems being reported.

Of broader significance is the confirmation by parents that the new playgrounds have increased their pride in their schools and have instilled a stronger sense of community identity. Because increased parent involvement in schools has been reported in the literature as one of the most important predictors of student performance,<sup>3</sup> the value of playgrounds as a means of connecting parents to their children’s schools is particularly important.

Within the short period of time during which the playgrounds have been in operation, our evaluation report shows that these improved outdoor environments have had clear positive benefits in a number of important areas. We anticipate that over time the broader value of these playgrounds will be more readily measurable, particularly in the areas of student behavior and performance, parental involvement and community pride and connection to local neighborhood schools.

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3 Epstein, J.L. (1995) School, family, community partnerships: Caring for the children we share. *Phi Delta Kappan*, 77(9), pp. 701-12, May, 1995.

Table 1. Anticipated and Achieved Outcomes of Learning Landscape Project's Initial Phase

Category	Outcome	Measurement Status (Y/N/P)		
		Anecdotal	Survey	Test
Physical activity & nutrition impacts	Increased physical activity (children and families) Improved fitness levels, better hand-eye coordination Improved physical/motor skills Fewer injuries due to increased safety of playgrounds Reduction in melanoma •Health & nutrition awareness	Y Y Y Y N P	Y N Y Y N P	N N N N N N
Socialization skills and play opportunities	•More structured play •More age- and gender appropriate play opportunities •More focus on “play” using the play equipment •Creative Play	•Y •Y •Y •Y	•Y •Y •Y •Y	•N •N •N •N
Socialization skills and behavioral impacts	Reduced suspensions/principal referrals from school Reduced bullying, violence, and victimization Increased cooperation Increased sense of belonging	Y Y Y Y	N Y Y Y	N N N N
Improvised academic opportunities	•Opportunities for outdoor learning •Increased use of playgrounds as outdoor classrooms •Experiential learning opportunities •Use of environmental learning curricula	•N •N •Y •N	•N •N •Y •N	•N •N •N •N
Improved academic performance	Increased school attendance Higher standardized test scores (CSAP) Improved learning readiness/attentiveness in class Improved cognitive development	N N Y N	N N Y N	N N N N
Community/Parents involvement in the school	•Assists to customize playground to local needs •Community fund-raising to support the playground •Community use of the playground after school hours Impact on environmental and sustainable development Greater perceptions of green space in neighborhood Reduction of vandalism Development of community gathering place Improved community outreach	•N •Y •Y •N •Y •Y •Y Y	•N •Y •Y •N •Y •Y •Y •Y	•N •N •N •N •N •Y •N N

# EVALUATION OF THE LEARNING LANDSCAPE PROJECT

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# EVALUATION OF THE LEARNING LANDSCAPE PROJECT FINAL REPORT

## 1. INTRODUCTION

### What are Learning Landscapes?

Through the Learning Landscape (LL) program, innovative, multi-use playgrounds have been created for elementary schools in Denver's inner city neighborhoods. This program has been sponsored by a broad-based public-private partnership and directed by expert staff and students from the Department of Landscape Architecture at the University of Colorado at Denver, College of Architecture and Planning. The overall goals of the program have been to create fun, participatory play areas in order to:

- Encourage outdoor learning
- Improve play opportunities for children of all ages
- “Green” the grounds of the participating schools and
- Encourage community ownership of local schools.

Playgrounds within the Denver Public School system have suffered from neglect over the years. Due to budget limitations, these recreational spaces have consisted of hard play surfaces such as gravel or concrete with limited play equipment. The Learning Landscape playgrounds, by contrast, are grass-filled, purposefully designed spaces that provide playground equipment for children of all ages. With shade structures and picnic tables, the playgrounds also serve as gathering points for community residents and can become a source of pride for the surrounding neighborhoods.

### Scope and Purpose of the Evaluation

This evaluation has been designed to hear the voices of the multiple stakeholders involved in the Learning Landscape (LL) project: school principals, teachers, students and community members. Recognizing that most of the LL playgrounds are relatively new, the evaluation captures the project's “early learnings” and provides initial feedback on the impacts of these playgrounds. Data have been collected in a number of different ways: document review,



one-on-one interviews, surveys and focus groups. The resulting information provides a composite picture of the project and the relative success it has achieved to date.

### **Background Literature on Expected Impacts of Learning Landscapes**

The concept of a learning landscape is connected to a rich theoretical tradition. In principle, these environments are designed to promote outdoor learning, to offer exceptional play opportunities while becoming aesthetically pleasing gathering points within the community.

In 1998, Bromwell Elementary School became the first Learning Landscape project in Denver. Five schools within the Denver Public School System followed Bromwell's example and have completed, or are in the process of completing these enriched playgrounds. Outside of Colorado, other communities have also experimented with similar programs and have realized positive results.

- The Boston Schoolyard Initiative is a public/private partnership that promotes the design and development of new schoolyard spaces. As part of this project, the City of Boston has spent over \$12 million to develop playgrounds in 64 public schools. Through a community development process, communities are engaged in developing play spaces that combine recreation, creative play and experiential learning. Key components of this initiative include community development, educational innovation and environmental stewardship as mechanisms for strengthening community neighborhoods and empowering residents.
- The SPARK program in Houston, Texas is a public-private partnership that promotes the development of school playgrounds into community parks. Since 1983, 156 playgrounds have been constructed, each incorporating citizen involvement, school district support, city government involvement and corporate sponsorship. Playgrounds are custom designed to meet the needs of the individual participating communities.

While large-scale evaluations of these Learning Landscape projects have not yet been completed, preliminary research suggests a number of likely outcomes from these programs, as listed in Table 1.

Safety	<ul style="list-style-type: none"> <li>· Fewer injuries due to removal of asphalt and concrete surfaces</li> <li>· Fewer injuries resulting from improved play (i.e., less bullying) <sup>4</sup></li> </ul>
Improved socialization	<ul style="list-style-type: none"> <li>· More structured play opportunities</li> <li>· More age- and gender appropriate play opportunities <sup>5</sup></li> <li>· More focus on “play” using the playground equipment</li> <li>· Improved socialization among children <sup>6</sup></li> </ul>
Improved academic opportunities	<ul style="list-style-type: none"> <li>· Opportunities for outdoor learning <sup>7</sup></li> <li>· Increased use of playgrounds as outdoor classrooms <sup>8</sup></li> <li>· Experiential learning opportunities</li> <li>· Options for the use of environmental learning curricula</li> </ul>
Improved academic performance	<ul style="list-style-type: none"> <li>· Increased readiness to learn - students are more attentive after having play opportunities</li> <li>· Increased willingness to attend/participate in school</li> <li>· Improved test scores <sup>9</sup></li> </ul>
Community involvement in the school	<ul style="list-style-type: none"> <li>· Community helps to customize the playground to neighborhoods’ needs</li> <li>· Community fund-raising to support the playground</li> <li>· Community use of the playground after school and during vacation periods</li> <li>· Development of community gathering places which tend to be otherwise limited in urban neighborhoods</li> </ul>
Community ownership	<ul style="list-style-type: none"> <li>· Less graffiti</li> <li>· Pride in the school playground</li> <li>· Perceived “ownership” of the playground space</li> <li>· Greater “connectedness” to the school <sup>10</sup></li> </ul>

<sup>4</sup> Weinstein, C. and P. Pinciotti (1998) Changing a schoolyard: intentions, design decisions, and behavioral outcomes. *Environment and Behavior*. 20(3):345-71.

<sup>5</sup> Cohen, S. and S. Trostle (1990) Young children’s preferences for school-related physical environmental setting characteristics. *Environment and Behavior*. 22:753-66.

<sup>6</sup> Weinstein, C. and P. Pinciotti (1998) Changing a schoolyard: intentions, design decisions, and behavioral outcomes. *Environment and Behavior*. 20(3):345-71.

<sup>7</sup> Taylor, A. (1993) The learning environment as a three-dimensional textbook. *Children’s Environment*. 10(2):170-9.

<sup>8</sup> Moore, R. (1974) Anarchy zone: kids’ needs and school yards. *School Review*. 82:621-45.

<sup>9</sup> Lewis, M. (2001) Facility conditions and student test performance in the Milwaukee Public Schools. *Council of Educational Facility Planners International*

<sup>10</sup> Huttenmoser, M. (1995) Children and their living surroundings: empirical investigations into the significance for the everyday life and development of children. *Children’s Environments*.12(4):403-13.



## Timetable for the Project

Building on the experience of pioneer LL schools in the Denver Public School System, a committee was formed to expand the concept more broadly throughout the Denver metropolitan community. The Committee included representatives from the following organizations and individuals:

- The Gates Family Foundation
- Department of Landscape Architecture at the University of Colorado
- Denver Public Schools (DPS)
- The City of Denver
- Salazar Foundation
- DPS Foundation and
- Former DPS Principal, Alvina Krouse.

Meeting on a regular basis, the Committee launched a campaign to create Learning Landscape environments in nine Denver Public Schools by the summer of 2002. These nine projects are listed in Table 2, chronologically organized according to their completion dates.

**TABLE 2: TIMETABLE FOR INITIATION AND COMPLETION OF THE LEARNING LANDSCAPE PROJECTS IN DENVER PUBLIC SCHOOLS**

	<i>LL PROJECT COMPLETED</i>
Garden Place	Fall 2000
Knapp	Fall 2000
Fairmont	Fall 2001
Swansea	Fall 2001
Cowell	Summer 2002
Greenlee	Spring 2002
Colfax	Summer 2002
Smith	Summer 2002
Whittier	Summer 2003

## 2. PROFILE OF PARTICIPATING LEARNING LANDSCAPE SCHOOLS

All of the nine schools that have participated in the LL project to date are located in inner-city locations where poverty tends to be high. These schools are also located in areas designated as “focus” neighborhoods by the City of Denver.<sup>11</sup> Data, provided in Appendix A, profile the characteristics of students who attend the nine LL schools.

- The average enrollment is 515 students.
- On average, ninety-five percent of students are persons of color and
- Ninety-two percent qualify to receive free or reduced lunches and
- Twenty-eight percent of students require special education services.

### **3. SCOPE OF LEARNING LANDSCAPES CONSTRUCTED**

#### **Overview of the Components of the Learning Landscape Projects**

Prior to the development of the Learning Landscapes, master plans were created that defined the scope of these projects, outlined their key components and established phases for playground development and construction. The master plans also specified the types of playground equipment that would be included. In this section, key aspects of the Learning Landscape projects are summarized.

#### **Stated Playground Goals**

In general, all of the Learning Landscape schools shared common goals. As the master plans for each school were developed, however, certain goals assumed higher priority for some schools than for others. The goals that were common to the master plans were:

- Establishing a community focal point,
- Offering educational tools, and
- Improving recreational opportunities.

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<sup>11</sup> The Focus Neighborhood Initiative was instituted by Mayor Wellington Webb to provide resources to 16 low-income areas in the City of Denver. In particular, this Initiative has been focused on improving the overall physical environment of these areas, increasing the availability of affordable housing and improving the quality of life of neighborhood residents.

Other related goals included: providing a green area, updating equipment, improving safety and enhancing overall aesthetics

**STATED PLAYGROUND GOALS\***

	Community focal point	Educational tool	Provide a "green" area	Improve recreation opportunities	Update equipment	Improve safety	Improve aesthetics
Colfax	x			x		x	
Cowell	x		x	x	x		
Fairmont	x	x	x				
Knapp	x	x		x		x	x
Whittier	x	x	x	x	x	x	
Smith**		x		x			

\*Note: Greenlee has not been included because its master plan did not explicitly state goals.

\*\* Smith calls itself a "Renaissance School of the Arts," and as such aspires to goals that differ markedly, at least in tone, from the other schools. These include the desire to "create a campus appropriate to the curriculum of a School of the Arts" and to "recognize the individual as independent and as coexistent."

**Phases for Playground Development and Construction**

In general, the master plans for the LL projects included four phases of development and construction, incrementally spaced over time.<sup>12</sup> This type of planning helped to ensure a clear schedule for the completion of key project components, while spreading out the cost of these projects during the project period.

The average cost of the Learning Landscape projects studied was \$425,000. With the exception of Fairmont Elementary School, development costs tended to be highest in phase one and generally decreased with each subsequent phase.<sup>13</sup>

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<sup>12</sup> The plan for Cowell Elementary School included only two phases.

<sup>13</sup> The cost experience of Fairmont was the reverse of other schools, with the highest costs experienced in Phase 4 instead of Phase 1.

## Proposed Improvements and Equipment Installed

An overview of the types of playground changes made within the elementary schools participating in the LL program is provided below. Playground elements that are common to most of these playgrounds are:

- New recreation equipment
- Outdoor classrooms
- Shade structures and
- Gardens.

Other elements included in some, but not all playgrounds were: early childhood education areas, the grouping of age appropriate equipment, bermed exploration space and habitat areas for outdoor learning. (see Table 4 below) Additional improvements installed included: “game areas,” athletic playing areas for track, soccer, basketball and baseball, entry changes, parking lot conversions, asphalt redevelopment and the sodding and irrigation of fields. Rock gardens, water elements, green resting areas, nature paths and gathering places were also featured in some of the Learning Landscape environments.

**TABLE 4: EQUIPMENT AND PLAYGROUND IMPROVEMENTS FOR INDIVIDUAL LEARNING LANDSCAPE SCHOOLS\***

	Colfax	Cowell	Fairmont	Greenlee	Knapp	Smith	Whittier
“New equipment” for recreation	x	x		x	x	x	x
Grouping of age appropriate equipment	x	x	x		x		
Change of entries				x	x	x	
Parking lot conversions			x	x	x		
Outdoor classroom			x	x	x	x	
Asphalt redevelopment	x			x			x
Shade structures	x		x	x	x	x	x
Bermed exploration space				x			x
Sod/irrigate field	x		x			x	x
Habitat areas for outdoor learning				x	x	x	
Garden	x		x	x	x	x	x
Habitat areas for outdoor play	x						

\* This information was unavailable for Garden Place and Swansea.

#### **4. OUTCOME FINDINGS**

##### **Principal Observations and Reactions**

Face-to-face interviews were conducted with principals from the nine LL schools studied as part of this evaluation. The interviews followed a structured interview format and focused on how the playgrounds were developed and constructed, the overall vision for the playgrounds and any changes the principals had observed in their schools as a result of the playground construction.

The principals of the schools participating in the Learning Landscape initiative were active proponents of these projects, viewing them as a way to develop improved playgrounds and outdoor spaces within their schools. Working with teachers and students, as well as with the larger community of parents and neighborhood residents, principals, particularly in the three earliest projects, were actively involved throughout the life of the projects, creating committees to help with the design of the playground spaces, to solicit local sources of funding and to supervise playground construction.

The comments made by the principals during their interviews reveal that the Learning Landscapes achieved positive results in a number of different outcome areas, as demonstrated in Table 5 below. Since the interviewer asked the principal only open-ended questions, these endorsements of the playgrounds and their positive benefits were provided voluntarily and in an unsolicited manner.



**TABLE 5: RESULTS OF OPEN-ENDED INTERVIEWS WITH LL PRINCIPALS**

OUTCOME	PRINCIPAL OBSERVATIONS
Safety	<ul style="list-style-type: none"> <li>•The safety of the outdoor space has improved.</li> <li>•Disciplinary actions have been dramatically reduced.</li> <li>•Social interactions have become more positive and constructive.</li> </ul>
Improved Socialization	<ul style="list-style-type: none"> <li>•All parts of the playground are used and loved by all age groups, although preferences by age group exist.</li> <li>• The design and organization of the different play zones on the playgrounds works well to disperse children and to give everyone a place to play with fewer conflicts.</li> <li>•Supervision is easier because of the way the playgrounds are organized.</li> </ul>
Improved Academic Opportunities	<ul style="list-style-type: none"> <li>• It is too early to judge what the impact of the playgrounds will be on teaching because the schools and teachers have not had enough time to adopt curriculum related to the playgrounds.</li> <li>• One school is using a curriculum called <i>Second Step</i> which uses playground opportunities to reinforce a life skills curriculum taught in the classroom.</li> </ul>
Improved Academic Performance	<ul style="list-style-type: none"> <li>• Teachers have to spend less time on discipline and negative social interactions, leading to increased learning time in the classrooms.</li> <li>• The improved attitude and connection of students to the school may lead to improved academic performance.</li> </ul>
Community Involvement in the schools	<ul style="list-style-type: none"> <li>• The change in school-community relationships has been very positive for all schools.</li> <li>• The development of the Learning Landscape encouraged parental involvement in the schools. The project provided a non-threatening way for parents to volunteer in the school. Being connected through the project has stimulated some increased parental involvement with the school. Parents also spend more time at the school during and after school hours.</li> <li>• The community feels increased pride in the school and assumes increased responsibility for care of the playground.</li> </ul>
Community Ownership	<ul style="list-style-type: none"> <li>• There is a greater sense of pride in the schools and in the surrounding community.</li> <li>• The parents and community were involved in fundraising, resulting in a sense of ownership.</li> <li>•The playgrounds make the schools more inviting and improve the perception of the school. They create a more positive image.</li> <li>• By creating a green space for the community, there are opportunities for gathering places that will be used year round.</li> <li>•In neighborhoods with more commercial activity, local businesses have connected with the schools by making donations and becoming more involved with the schools.</li> <li>•Non-profit organizations in the communities have also been enhanced through the playground development.</li> </ul>

In sum, principals within the LL schools uniformly agreed that the projects had resulted in strong positive benefits for their schools and the surrounding communities. In particular, they believed that the new playgrounds had stimulated an enhanced sense of pride in the schools and a positive “sense of place” in the community by transforming older, gravel covered playgrounds without much “street appeal,” into a community green space with inviting play opportunities for children of all ages. The new playgrounds, themselves, were seen as offering both structured and unstructured spaces for play that enriched the lives of children and enhanced their socialization abilities. Teachers had reported to the principal that student behavior had improved and that fewer disciplinary actions were being reported on the playground. So more generally, after playing on the playgrounds, children were found to be more alert and ready to learn. Finally, the community, students and parents alike were observed to have a new sense of responsibility for the playground and the school, resulting in cleaner and safer school environments. The following comments illustrate these opinions on the part of the principals regarding their Learning Landscape playgrounds.

#### **COMMENTS FROM PRINCIPALS**

*Kids learn to interact and problem solve more effectively on the structured playground.  
The playground helps to teach the children to function in a structured environment.*

*Once the playground was open, there was a sense of calmness in the children when they entered the building that didn't exist before.*

*The playground has almost eliminated discipline referrals from the playground.*

*The playground gives the students a sense of responsibility and pride.*

*Building the playground generated increased parental involvement by providing a non-threatening opportunity for parents to help the school.*

*They (the larger community) are doing something for us.*

*The playground brings a focus to the community.*

*We receive calls from people in the community telling us how great it is to have the playground in our community.*

## **TEACHER OBSERVATIONS AND REACTIONS**

To gauge the opinions of teachers about the Learning Landscape playgrounds, a survey was distributed to teachers in the nine participating schools at teacher meetings. The overall response rate (56%) was high. The survey allowed for both close- and open-ended responses and asked for teacher opinions regarding the impacts of the Learning Landscapes in four areas: the school/community environment, education/curricula changes, student behavior/performance and parent/community involvement. Within each of these areas, a series of questions were asked using a five point Likert scale. Teachers were given the option of indicating whether they strongly agreed, somewhat agreed, were neutral, somewhat disagreed or strongly disagreed with each statement.

Overall, teachers within the LL schools were very positive about the impacts of these playgrounds in each of the four areas examined. As shown in Table 6, the average response showed agreement regarding changes in three areas of impact: the school/community environment, student behavior/performance and parent/community involvement. The teachers were more neutral about educational changes. This may reflect the fact that in most of the schools, the playgrounds have been in place for less than a year, a relatively short period of time for curricula changes to be made. The full results of the teacher surveys across all question items and for all schools are available in Appendix B.

**TABLE 6: RESULTS OF TEACHER SURVEYS WITHIN LL SCHOOLS**

Scale: 1 = Strongly Agree, 2 = Somewhat Agree, 3 = Neutral, 4 = Somewhat Disagree, 5 = Strongly Disagree

N= 123	Average Score	Representative Comments
School/Community Environment	2.0	<i>Bloody knees, elbows and injuries were a daily event on the old playground - not anymore</i>  <i>Graffiti has completely disappeared.</i>
Student Behavior/ Performance	2.2	<i>The students look forward to going outside.</i>  <i>Students are very much better behaved.</i>
Education	2.7	<i>I can speak for my PE classes that students are more attentive. I believe that's the case for other teachers.</i>
Parent/Community Involvement	2.1	<i>The community uses the new "park" as they call it, every day of the week from sun up to sun down.</i>  <i>Kids, high schoolers and families use the playground during off school hours. Parents are more involved with their children during morning recess. The children and community have a new sense of pride.</i>

Among all of the individual survey items, the specific areas in which the highest proportion of teachers agreed that the most positive changes had occurred are listed below. For each of these items, the proportion is shown for teachers who expressed *strong agreement* (choice #1) and *some agreement* (choice #2). A more detailed presentation of the responses for each of these items by level of response and by school is provided in Appendix B.

**BENEFITS OF THE LEARNING LANDSCAPE PLAYGROUNDS  
AS PERCEIVED BY TEACHERS**

Survey Item	% Strongly Agree or Somewhat Agree
<b>SCHOOL/COMMUNITY ENVIRONMENT</b>	
The playground has improved the beauty of our community.	97%
The playground provides areas that are developmentally appropriate for children to play.	90%
The playground has created a green space in the community.	86%
<b>STUDENT BEHAVIOR/ PERFORMANCE</b>	
The new equipment promotes more creative play.	80%
Children are more physically active during recess.	80%
Students interact more with their peers during recess.	75%
<b>PARENT/ COMMUNITY INVOLVEMENT</b>	
Local community businesses contributed to the playground.	79%
Parents participated in building the playground.	78%
The community has a sense of pride in the playground	77%

**STUDENT OBSERVATIONS AND REACTIONS**

In order to gain a better understanding of the students’ experience with the new LL playgrounds, six focus groups were held with 1<sup>st</sup>, 3<sup>rd</sup> and 5<sup>th</sup> graders within three of the Learning Landscape elementary schools. A total of 74 students participated in the nine groups. A trained focus group facilitator and co-facilitator conducted eight of the groups. The last group was conducted in Spanish by the school principal who translated the students’ comments during the group. During each group, students were asked the following three questions:

- How is the current playground different from the one you had before?
- What do you think of your new playground?
- What could be done to make your playground better?

Summary comments from the students were then organized according to common themes that occurred and examined by the grade level of the participating students and the school they attended. These themes were then compared with the outcomes areas mentioned previously in this report.

## Comments from Students

In all of the focus groups, students were enthusiastic about the new playgrounds. Students (especially the 1<sup>st</sup> graders) detailed their favorite types of equipment such as the monkey bars, swings, fireman’s pole and slide. They also talked about enjoying being able to play games like soccer, football and tag in the new grass fields.

Beyond the play opportunities, students recognized other benefits of the new playgrounds. Students in every grade mentioned the benefit of just being able to spend time playing or talking with friends on the playground. Another area mentioned by all grades was the increased sense of pride and ownership that the students felt for their new playgrounds. The older students specifically appreciated the increased safety on the playground with gravel having been replaced by woodchips. Fifth graders, in particular, were articulate about differences between the new and old playground, describing the new playgrounds as being more challenging and more organized. The table below describes these results in more detail.

**TABLE 7: RESULTS OF STUDENT FOCUS GROUPS**

### Safety

	1 <sup>st</sup> Graders	3 <sup>rd</sup> Graders	5 <sup>th</sup> Graders
<b>FEWER INJURIES DUE TO REMOVAL OF ASPHALT AND CONCRETES</b>		x	x
<ul style="list-style-type: none"> <li>▪ Like the grass because we don’t get cuts</li> <li>▪ Like wood chips because you don’t hurt yourself</li> <li>▪ Can play tag now – never able to play on blacktop</li> </ul>			
<b>EQUIPMENT IS SAFER</b>		x	x
<ul style="list-style-type: none"> <li>▪ Don’t like the old part of the playground because the metal gets hot and you can get burned</li> <li>▪ Like new swings because they don’t pinch your hand like the old metal ones</li> </ul>			
<b>OTHER</b>	x	x	x
<ul style="list-style-type: none"> <li>▪ Safe to play on</li> <li>▪ Safer playground</li> <li>▪ Principal makes sure we are safe – uses rules on playground</li> </ul>			

### Improved Socialization

	1 <sup>st</sup> Graders	3 <sup>rd</sup> Graders	5 <sup>th</sup> Graders
<b>OPPORTUNITIES FOR BEING WITH FRIENDS</b>	x	x	x
<ul style="list-style-type: none"> <li>▪ Spend time talking with friends on playground</li> <li>▪ Getting to know friends</li> <li>▪ Sometime just “hang around” talking near the grass</li> <li>▪ Play with friends</li> </ul>			

<b>MORE AGE AND GENDER APPROPRIATE PLAY OPPORTUNITIES</b>			x
<ul style="list-style-type: none"> <li>▪ <i>Girls play more on the equipment and the boys play football</i></li> </ul>			
<b>MORE STRUCTURED PLAY OPPORTUNITIES</b>			x
<ul style="list-style-type: none"> <li>▪ <i>New playground is more organized</i></li> <li>▪ <i>The new playground is more challenging</i></li> </ul>			
<b>OTHER</b>			x
<ul style="list-style-type: none"> <li>▪ <i>Today you can not get people off the playground but before no one would play on the playground</i></li> </ul>			

### Community Involvement in School

	1 <sup>st</sup> Graders	3 <sup>rd</sup> Graders	5 <sup>th</sup> Graders
<b>COMMUNITY USE OF THE PLAYGROUND AFTER SCHOOL AND ON WEEKENDS</b>	x	x	x
<ul style="list-style-type: none"> <li>▪ <i>Use playground on the weekend with family members</i></li> <li>▪ <i>Had a little party with my family, aunties and cousins</i></li> <li>▪ <i>Come with my brother because we like to spend time together</i></li> <li>▪ <i>My uncle and I play basketball on the weekends</i></li> </ul>			
<b>COMMUNITY INVOLVEMENT IN THE PLANNING AND IMPLEMENTATION OF PLAYGROUND</b>		x	
<ul style="list-style-type: none"> <li>▪ <i>Feel good about having helped create the playground</i></li> <li>▪ <i>Teachers and parents worked hard putting in the grass</i></li> </ul>			
<b>DEVELOPMENT OF A COMMUNITY GATHERING PLACE</b>			x
<ul style="list-style-type: none"> <li>▪ <i>Community playground – mostly like a park</i></li> </ul>			

### Community Ownership

	1 <sup>st</sup> Graders	3 <sup>rd</sup> Graders	5 <sup>th</sup> Graders
<b>PRIDE IN SCHOOL PLAYGROUND</b>			x
<ul style="list-style-type: none"> <li>▪ <i>Makes us feel proud because people say we have the best playground</i></li> </ul>			
<b>PERCEIVED OWNERSHIP OF THE PLAYGROUND SPACE</b>	x	x	x
<ul style="list-style-type: none"> <li>▪ <i>Need more trash cans</i></li> <li>▪ <i>Don't like that people are mistreating playground</i></li> <li>▪ <i>Don't like the graffiti that shows up about once every few months</i></li> <li>▪ <i>Looks better – cleaner, neater</i></li> <li>▪ <i>Feel responsible for taking care of the playground – we should really appreciate what the old principal did for us</i></li> <li>▪ <i>We have a little patrol to keep the playground clean</i></li> </ul>			

## COMMUNITY OBSERVATIONS AND REACTIONS

A critical component of the LL playgrounds lies in their foundation as a public- private partnership promoting community involvement and ownership of the playground projects. Previous playground projects, both in Denver and across the country, suggest ways in which educators can maximize their chances for making community connections. These include creating a collaborative process for designing the playgrounds, incorporating significant community input into all phases of the project, and creating a broadly constituted base for funding that includes both public and private partners. These steps have been found to increase “buy-in” from those who will use the playground – students, teachers, and community members – and help to ensure that the playgrounds are shaped to an individual community’s needs.

To assess the reaction of the neighboring communities to the new Learning Landscape playgrounds, a survey was distributed. The format of the survey paralleled the survey developed for teachers, incorporating similar questions about changes in the school and community environment. In addition, community members were asked about their involvement in planning and implementing the playground construction. Surveys were distributed at local community meetings, parent meetings within the schools, and to community members known to have been involved. A total of 58 surveys were returned from these efforts. In addition, AmeriCorps volunteers were used to distribute these surveys to parents of children enrolled in the nine Learning Landscape schools being studied. Each student in the schools was asked to have their parents complete the survey. Of the 4,639 surveys distributed in this manner, 1,189 (or 26 percent) were returned.

The results demonstrate that most of the community respondents (73%) had used the playgrounds and nearly a quarter (23%) had participated in their construction. Close to half (or 43%) say that they are more involved with other school activities that involve the playground than they were before. The table below shows that these community representatives believe the Learning Landscape playgrounds have provided benefits to the community as a whole.

TABLE 8: RESULTS FROM THE COMMUNITY SURVEY

Scale: 1 = Strongly Agree, 2 = Somewhat Agree, 3 = Neutral, 4 = Somewhat Disagree, 5 = Strongly Disagree



N=58	Average Response	Representative Comments
The community has a sense of pride in the playground.	1.8	<i>The kids love it.</i>
	77% Agree	
The playground has fostered a stronger sense of community identity.	2.0	<i>Building the new playground has brought our community together.</i>
	72% Agree	
The playground is a focal point for the community.	2.1	<i>I love to bring my children to play on the weekends</i>
	68% Agree	
The community has developed a sense of ownership for the playground.	2.1	<i>I pick up the trash all the time back there when I'm running.</i>
	66% Agree	
The connection with the community is stronger because of the construction process.	2.2	<i>Helping to build the new playground has been an exciting and learning experience.</i>
	62% Agree	

### **IMPACT ON STUDENT LEARNING**

As reported in other communities, Learning Landscape projects have the potential to improve the academic performance of students in several different ways. Having outdoor play/learning opportunities can change student behavior by creating an improved readiness to learn, increasing attentiveness in the classroom, promoting a greater willingness on the part of students to participate in school activities and providing a safer play environment with more structured play opportunities. Teachers, in turn, can use the Learning Landscapes to increase learning by using the playgrounds as outdoor classrooms, employing environmental and life skills learning curricula and more generally promoting experiential learning opportunities within the playgrounds. Learning Landscapes also provide opportunities for parents to become involved in their children's schools either directly through participation in the construction of the playgrounds or more indirectly through the use of these playgrounds during after-school hours. Broader community support and pride in the schools are also seen as factors that can improve a sense of ownership of the schools, potentially enhancing student commitment to learning and achievement.

The preliminary results described in this report suggest that the Learning Landscape schools within the Denver Public School system are beginning to realize these benefits for

students, teachers, parents and the surrounding community. A critical question is whether these changes can, in turn, be observed to be making a difference in student performance.

Since 1999, Colorado has had a standardized student-testing program, the Colorado Student Assessment Program (CSAP), that allows comparisons in student performance across schools. There are two ways in which the CSAP testing program can be used to examine trends in student performance within the Learning Landscape schools:

- 1) Each elementary school has been rated in terms of the overall academic performance of its students. Schools can obtain a ranking of excellent, high, average, low, or unsatisfactory based on the percentage of students who score proficient (i.e., at grade level) or above on the various tests that are given.

2) The performance of students within individual subject areas can be tracked by grade level. At the elementary school level, students are tested at the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> grade levels in three subject areas: reading, math and writing. While CSAP program provides a basis for assessing student test scores within the Learning Landscape schools, the program is being phased in. Hence, test scores are not uniformly available for all schools, for all grades or for all testing subject areas. The only testing area for which test scores have been collected for all students since 1999 are the reading tests for 3<sup>rd</sup> and 4<sup>th</sup> graders.<sup>14</sup>

As shown in Table 9 below, the aggregate academic performance ratings for the participating LL schools do not show any change between the years 2000-2001 and 2001-2002. All of the Learning Landscape schools have “low” to “unsatisfactory” performance ratings, reflecting in part the challenges faced by their students. (As described earlier, the elementary schools participating in the Learning Landscape program have very high percentages of students (92 percent) who qualify for a free lunch, indicating that they come from low-income backgrounds.) One Learning Landscape school, Fairmont, did show “significant improvement” in the scores of its students between the 2000-2001 and the 2001-2002 testing periods.

**TABLE 9: TRENDS IN CSAP SCHOOL RATINGS FOR ACADEMIC PERFORMANCE**

	2000-2001	2001-2002	
Garden Place	Low	Low	Decline
Fairmont	Low	Low	Significant Improvement
Knapp	Low	Low	Stable
Swansea	Unsatisfactory	Unsatisfactory	Stable

\* Ratings are not provided for Colfax, Cowell, Greenlee, Smith and Whittier Elementary Schools because their Learning Landscape playgrounds have been in place for less than one year.

<sup>14</sup> Mathematics assessments began in 2000 for 5th graders. In 2001, reading assessments were initiated for 5th graders, while in 2002, writing assessments began for 3<sup>rd</sup> and 5<sup>th</sup> graders. The year 2002 is the first year in which reading and writing assessments are available for 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> graders.

Table 10 examines changes in test scores at the student level, considering reading scores for 3<sup>rd</sup> and 4<sup>th</sup> graders between 1999 and 2002. This table shows that average overall reading scores have improved, particularly among 3<sup>rd</sup> graders. When aggregated, these improvements are comparable to those observed in other schools within the Denver Public School system as well as other elementary schools throughout Colorado.

In summary, while there have been some positive improvements in test scores, it would be difficult at this early stage to say that the Learning Landscape program, in and of itself, is responsible for these changes, without considering other efforts underway within these schools that are unrelated to the Learning Landscape project. At the same time, the results from the literature and the observations of the principals and teachers would suggest that having a Learning Landscape playground does improve the readiness of students to learn, their attentiveness in class, and their pride in their school, all factors that contribute to overall academic achievement.

**TABLE 10: TRENDS IN READING SCORES WITHIN LL SCHOOLS**

	% Change 3 <sup>rd</sup> Grade 1999-2002	% Change 4 <sup>th</sup> Grade 1999-2002
<b><u>Learning Landscapes in Place for 1 to 2 years</u></b>		
Garden Place (Fall 2000)	-2%	12%
Knapp (Fall 2000)	18%	11%
Fairmont (Fall 2001)	13%	-6%
Swansea (Fall 2001)	0%	3%
<b>AVERAGE CHANGE</b>	<b>7.25%</b>	<b>2%</b>
<b><u>All Denver Public Schools</u></b>		
<b>AVERAGE CHANGE</b>	<b>7%</b>	<b>4%</b>
<b><u>All Colorado Schools</u></b>		
<b>AVERAGE CHANGE</b>	<b>5%</b>	<b>2%</b>

\* CSAP test score changes are not provided for Colfax, Cowell, Greenlee, Smith and Whittier Elementary Schools because their Learning Landscape playgrounds have been in place for less than one year.

## CONCLUSIONS AND RECOMMENDATIONS

The Learning Landscape project has installed innovative, multi-use playgrounds in elementary schools throughout the Denver Public School system. Beyond the obvious recreational benefits and the aesthetic improvement of the school grounds, these playgrounds have a number of other potential impacts including:

- Improved safety
- Opportunities for enhanced socialization through structured play opportunities
- Greater academic opportunities through outdoor and experiential learning
- Enhanced student readiness to learn
- Potential improvements in student performance
- Greater involvement of the community in the school and
- Increased ownership of the school in the community.

This report documents that the Learning Landscape project achieved a number of these results, as found through the following data collection efforts.

- The principals within the participating schools, interviewed as part of this evaluation, were uniformly positive about the impacts of the new playgrounds, reporting benefits from the playgrounds in the areas of safety, socialization, academic opportunities, readiness to learn, community involvement in the schools and community ownership of the schools.
- Teachers, surveyed within the participating schools, concurred with the principals, agreeing that the playgrounds had produced positive effects related to the school/community environment, student behavior/performance and parent/community involvement. Changes in education and curricula were reportedly too early to observe.
- Students, contacted through focus groups, were enthusiastic about the playground equipment and the grass fields. They reported that the new playgrounds were safer, more organized and more challenging. They also indicated that they and their families used the playgrounds during after-school hours and that they were proud about the playground space, taking responsibility for keeping it clean.

- Community members, surveyed as part of this project, agreed that the playgrounds had fostered a stronger sense of community identity. Community members were proud of the new playgrounds and had a sense of ownership for them. The playgrounds were described as having become a focal point within the community.

As part of this evaluation, schools participating in the Learning Landscape schools were examined in terms of any observable changes in student performance. Data from the Colorado Student Assessment Program (CSAP) studied between 1999 and 2000 do not currently reveal any consistent changes in test scores nor improvements in overall school ratings for the Learning Landscape elementary schools. Nonetheless, other findings from this report suggest that schools with Learning Landscapes have the potential to improve the readiness of students to learn by increasing attentiveness in the classrooms, promoting a greater willingness on the part of students to participate in school activities and by providing a safer play environment with more structured play opportunities. The broader potential of the Learning Landscapes as outdoor classrooms and venues for experiential learning further enhance these learning opportunities. More generally, Learning Landscapes allow parents and other community members to gain pride and ownership in their schools, connecting schools to their surrounding neighborhoods in innovative ways and becoming a focal point for community residents to gather and gain more commitment to their local school and its mission.

Since most of the Learning Landscape playgrounds have been in place for less than one year, longer term impacts on student behavior and performance cannot yet be observed. Results from other cities would suggest that student behavior and performance can be expected to change and principals in schools with LL playgrounds report that they have observed improved attendance, a drop in safety incidents, a lower number of disciplinary infractions and some improvement in test scores. In some schools, vandalism has reportedly decreased. Others have found increases in parental involvement in school activities. In a separate report, options for tracking these indicators over time are summarized. Information on student behavior, student performance and parent satisfaction are currently collected by the Denver Public Schools and can be compiled to monitor the impacts of the Learning Landscape playgrounds over time.

## **RECOMMENDATIONS FROM PRINCIPALS**

As key supporters of the Learning Landscapes and leaders within the local schools, the principals interviewed through this study were asked for any recommendations they might have regarding the project. While each school was found to have had a different experience in terms of the development of their Learning Landscape playgrounds, the principals offered some suggestions regarding how this type of project might be structured in the future:

- Begin the process only when the school is fully committed to the project. Support from the entire school staff is important.
- Recognize that a significant time commitment is required from people in the school as the playground is being constructed. Maintain positive energy around the project.
- Ensure that principals are committed to the project since their support is key to having a successful project.
- Modify the DPS school survey of parents to include questions about the playground to monitor its impact on the school community.
- Provide assistance with school fundraising. Most of the schools could use ideas and advice on this topic.
- Be patient during the process.
- Bring the community into the process early.
- Include science and math components into the playground features, through equipment that incorporates measurement concepts.



## Profile of Learning Landscapes Schools

### Appendix A - School Profiles

	Colfax	Cowell	Fairmont	Garden Place	Greenlee	Knapp	Smith	Swansea	Whittier
<b>Size</b>									
Enrollment	367	617	537	528	468	670	472	724	256
# of Teachers	21	31	32	30	31	35	29	39	16
<b>Student Profile</b>									
% Hispanic	88%	92%	91%	85%	69%	90%	27%	92%	31%
% African American	2%	2%	2%	6%	16%	1%	68%	3%	66%
% White	7%	5%	5%	8%	6%	7%	3%	4%	2%
% Other	4%	2%	2%	2%	9%	3%	2%	2%	2%
% Eligible for Free Lunch	94%	88%	96%	87%	91%	91%	90%	97%	93%
% in Special Education	32%	36%	10%	12%	-	6%	53%	44%	30%
<b>Overall Academic Performance</b>									
2001-2002	Low	Unsatisfactory	Low	Low	Low	Low	Unsatisfactory	Unsatisfactory	Low
2000-2001	Low	Unsatisfactory	Low	Low	Low	Low	Unsatisfactory	Unsatisfactory	Low

## Profile of Learning Landscapes Schools



## Suspensions Per 100 Students\*

	Enrollment		Number of Suspensions per 100 Students		Number of Students Suspended per 100 Students	
	1999-2000	2000-2001	1999-2000	2000-2001	1999-2000	2000-2001
	Colfax	408	367	4.2	4.6	3.7
Cowell	570	617	0.4	0.3	0.4	0.3
Fairmont	557	537	11.8	13.8	7.7	8.0
Garden Place	514	490	8.8	4.7	6.0	3.7
Greenlee	502	468	7.0	2.8	6.4	2.8
Knapp	652	652	0.9	1.2	0.8	1.2
Smith	537	472	6.1	1.5	3.7	1.5
Swansea	702	724	5.6	7.0	3.6	4.3
Whittier	238	256	9.2	18.4	5.5	10.5
<b>Total</b>			<b>54.0</b>	<b>54.3</b>	<b>37.7</b>	<b>36.1</b>

\* According to an internal report supplied by Denver Public Schools

## Safety and Discipline Incidents\* Per 100 Students

School Name	Colfax		Cowell		Fairmont		Garden Place		Greenlee		Knapp		Smith		Swansea		Whittier	
Enrollment	408	367	570	617	557	537	514	490	502	468	652	652	537	472	702	724	238	256
School Year	1999-2000	2000-2001	1999-2000	2000-2001	1999-2000	2000-2001	1999-2000	2000-2001	1999-2000	2000-2001	1999-2000	2000-2001	1999-2000	2000-2001	1999-2000	2000-2001	1999-2000	2000-2001
<b>Incidents</b>																		
Assault	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-
Defiance	-	-	0.2	-	-	-	1.0	0.2	0.4	0.2	-	-	1.3	0.6	0.9	0.1	0.8	5.1
Destruction of Property	-	-	-	-	-	0.2	0.6	0.6	-	-	-	-	-	-	0.1	-	-	1.2
Destruction of School Property	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	0.4
Detrimental Behavior	-	-	-	-	-	-	-	-	4.2	-	-	-	-	-	-	-	-	-
Disruptive Appearance	0.7	-	-	-	1.3	3.2	-	-	0.2	-	-	-	-	-	-	-	-	-
Educational Interference	-	-	-	0.2	-	-	0.6	0.4	0.4	0.4	-	-	-	-	0.1	0.1	0.4	0.8
Fighting	2.7	2.5	-	-	7.5	5.8	3.7	1.6	-	0.6	-	-	2.2	0.6	2.6	4.8	3.8	5.1
Fixed Blade Knife	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-
Gang Activities	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-
Harassment	-	-	-	0.2	-	0.6	-	0.2	-	-	-	0.2	0.2	-	0.1	0.6	0.4	2.0
Object Looks Like Firearm	-	0.5	-	-	-	0.2	0.2	-	-	-	-	-	-	-	-	0.1	-	-
Offense Against Staff	-	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	0.7	1.1	0.2	-	1.4	2.2	1.8	1.0	1.6	-	0.9	1.1	2.0	-	1.1	0.6	0.4	0.8
Other Dangerous Weapons	-	-	-	-	-	0.2	0.2	0.4	-	0.9	-	-	-	-	0.1	0.4	-	-
Pocket Knife	-	0.3	-	-	0.2	-	0.2	-	-	-	-	-	-	-	-	-	-	-
Slurs	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	0.8
Substance Abuse	-	-	-	-	-	-	-	-	0.2	0.2	-	-	-	-	-	-	-	-
Theft/Larceny	-	-	-	-	0.5	-	0.4	0.2	-	-	-	-	-	-	0.3	-	2.5	1.2
Tobacco	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-
Unapproved Organization	-	-	-	-	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-
Use of Obscenities	-	-	-	-	0.7	0.9	-	-	-	-	-	-	0.4	-	0.1	-	0.8	1.2
<b>Total</b>	<b>4.2</b>	<b>4.6</b>	<b>0.4</b>	<b>0.3</b>	<b>11.8</b>	<b>13.8</b>	<b>8.8</b>	<b>4.7</b>	<b>7.0</b>	<b>2.8</b>	<b>0.9</b>	<b>1.2</b>	<b>6.1</b>	<b>1.5</b>	<b>5.6</b>	<b>7.0</b>	<b>9.2</b>	<b>18.4</b>

\* According to a report produced by Denver Public Schools Educational Services

## Number of Graffiti Work Orders Before and After Installation of LL Playground

<b>Number of Graffiti Work Orders</b>			
	Before LL Playground	After LL Playground	Change
<b>PLAYGROUND COMPLETED IN: FALL, 2000</b>			
Garden Place	1	2	Increased by 1
Knapp	2	10	Increased by 8
<b>PLAYGROUND COMPLETED IN: FALL, 2001</b>			
Fairmont	15	14	Decreased by 1
Swansea	4	4	No Change
<b>PLAYGROUND COMPLETED IN: SPRING, 2002</b>			
Cowell	14	1	Decreased by 13
Greenlee	8	2	Decreased by 6
<b>PLAYGROUND COMPLETED IN: FALL, 2002</b>			
Colfax	2	0	Decreased by 2
Smith	1	0	Decreased by 1
<b>PLAYGROUND COMPLETED IN: SPRING, 2003</b>			
Whittier	0	0	No Change

## Student Average Daily Attendance\*

	1999-2000	2000-2001	2001-2002	
Colfax	93.5%	93.9%	94.9%	Increased 1.4% from 1999 to 2002
Cowell	95.4%	94.4%	93.7%	Decreased 1.7% from 1999 to 2002
Fairmont	99.8%	94.2%	93.7%	Decreased 6.1% from 1999 to 2002
Garden Place	94.3%	93.3%	92.8%	Decreased 1.5% from 1999 to 2002
Greenlee	93.9%	93.8%	93.9%	Did not change from 1999 to 2002
Knapp	99.7%	95.6%	94.5%	Decreased 5.2% from 1999 to 2002
Smith	96.2%	96.0%	91.3%	Decreased 4.9% from 1999 to 2002
Swansea	94.5%	94.7%	94.6%	Increased .1% from 1999 to 2002
Whittier	93.2%	93.7%	94.5%	Increased 1.3% from 1999 to 2002

\* According to School Accountability Reports located on the Colorado Department of Education website : <http://www.cde.state.co.us/>

## Teacher Survey Results School/Community Environment

Since the installment of the new playground

Appendix B - Teacher Survey

Average Score Across  
All Items = 2.0  
"Somewhat Agree"

	The playground has improved the beauty of our community	The playground has created a green space in the community	The playground provides areas that are developmentally appropriate	There is enough equipment to accommodate every student	The school spends more time caring for and maintaining the playground	Students are keeping the playground clean	Playground accidents have decreased	There has been less graffiti on school property	Visits to the nurse have decreased
<b>1 - Strongly Agree</b>	<b>81%</b>	<b>70%</b>	<b>64%</b>	<b>39%</b>	<b>31%</b>	<b>28%</b>	<b>27%</b>	<b>26%</b>	<b>15%</b>
2 - Somewhat Agree	16%	16%	26%	33%	32%	40%	27%	30%	27%
3 - Neutral	2%	8%	7%	10%	25%	23%	41%	30%	54%
4 - Somewhat Disagree	0%	5%	4%	11%	10%	8%	3%	8%	4%
5 - Strongly Disagree	1%	1%	0%	8%	2%	1%	2%	5%	1%

Garden Pl.	N=15	1.5	1.8	1.6	2.1	2.2	1.9	2.1	1.9	2.2
Fairmount	N=13	1.0	1.1	1.7	1.5	1.3	1.4	1.4	2.9	2.1
Knapp	N=14	1.4	1.7	1.1	2.1	2.9	2.7	2.4	3.6	2.6
Cowell	N=24	1.5	1.9	2.2	3.8	3.0	2.9	2.9	2.9	2.9
Greenlee	N=19	1.2	1.3	1.4	1.7	1.9	2.3	2.5	2.5	2.8
Smith	N=10	1.1	1.1	1.1	1.1	1.4	1.7	1.4	1.1	2.0
Whittier	N=8	1.1	1.3	1.4	2.9	2.5	2.3	2.2	1.6	2.6
Colfax	N=20	1.0	1.1	1.2	1.5	2.0	1.4	1.9	1.3	2.2

Total N=123

<b>Average</b>		<b>1.2</b>	<b>1.4</b>	<b>1.5</b>	<b>2.2</b>	<b>2.2</b>	<b>2.1</b>	<b>2.2</b>	<b>2.3</b>	<b>2.5</b>
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### Scale

Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
1	2	3	4	5

## Teacher Survey Results

### Education

Since the installment of the new playground

Average Score Across  
All Items = 2.7  
"Somewhat Agree" to "Neutral"

	Students receive a higher quality physical education	Students have more hands-on experience in science or other subjects	Teachers use the playground as an area to teach students	Teachers will incorporate the playground into their curricula	Training about how to use the playground as an educational tool is available
<b>1 - Strongly Agree</b>	<b>34%</b>	<b>18%</b>	<b>7%</b>	<b>7%</b>	<b>5%</b>
2 - Somewhat Agree	31%	30%	38%	29%	18%
3 - Neutral	27%	38%	41%	46%	39%
4 - Somewhat Disagree	6%	9%	12%	13%	21%
5 - Strongly Disagree	2%	6%	3%	5%	17%

Garden Pl.	N=15	2.3	2.2	2.8	3.3	3.4
Fairmount	N=13	1.2	1.7	2.0	2.6	2.9
Knapp	N=14	1.9	3.3	2.9	3.2	3.2
Cowell	N=24	2.8	3.2	3.3	3.4	3.5
Greenlee	N=19	2.4	2.5	2.6	2.7	3.6
Smith	N=10	2.2	2.0	2.3	2.2	2.7
Whittier	N=8	2.7	1.8	2.8	2.7	4.2
Colfax	N=20	1.8	2.3	2.4	2.3	3.0

<b>Total</b>	N=123	<b>2.2</b>	<b>2.5</b>	<b>2.6</b>	<b>2.8</b>	<b>3.3</b>
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#### Scale

Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
1	2	3	4	5



## Teacher Survey Results Student Behavior/Performance

Since the installment of the new playground

Average Score Across  
All Items = 2.2  
"Somewhat Agree"

	The new equipment promotes more creative play	Children are more physically active during recess	Students interact more with their peers during recess	Students relate to each other better	There is less aggressive behavior between students during recess	Students are more attentive during class time	The misconduct of students during class time occurs less frequently	Supervision on the playground requires less teacher time
<b>1 - Strongly Agree</b>	<b>46%</b>	<b>45%</b>	<b>39%</b>	<b>30%</b>	<b>29%</b>	<b>21%</b>	<b>18%</b>	<b>18%</b>
2 - Somewhat Agree	34%	35%	36%	32%	27%	17%	22%	25%
3 - Neutral	19%	18%	24%	25%	43%	36%	45%	42%
4 - Somewhat Disagree	2%	2%	1%	11%	1%	18%	14%	14%
5 - Strongly Disagree	0%	0%	0%	2%	0%	8%	1%	2%
Garden Pl. N=15	1.7	1.4	1.8	1.6	2.0	2.5	2.3	2.3
Fairmount N=13	1.2	1.2	1.2	1.1	1.3	1.9	1.9	1.9
Knapp N=14	1.9	1.9	2.1	2.4	2.4	3.6	2.9	3.0
Cowell N=24	2.4	2.4	2.5	3.0	2.9	3.1	3.0	3.1
Greenlee N=19	2.0	1.9	2.1	2.9	2.4	3.1	2.9	3.0
Smith N=10	1.2	1.4	1.4	2.1	2.2	2.3	2.8	2.4
Whittier N=8	1.5	1.7	1.5	2.5	2.3	2.7	2.8	3.0
Colfax N=20	1.6	1.3	1.6	1.6	1.6	2.4	1.8	1.7
<b>Total N=123</b>	<b>1.8</b>	<b>1.7</b>	<b>1.9</b>	<b>2.2</b>	<b>2.2</b>	<b>2.7</b>	<b>2.5</b>	<b>2.6</b>

### Scale

Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
1	2	3	4	5

## Teacher Survey Results Parent/Community Involvement

Average Score Across  
All Items = 2.1  
"Somewhat Agree"

	Local community businesses contributed to the playground	Parents participated in building the playground	The community has a sense of pride in the playground	The community has an increased sense of ownership for the school	Community members utilize the playground	The playground has fostered a stronger sense of community	The playground is a focal point for community activities	Parents helped raise money to build the playground	Parents helped to plan the playground	Parents are more involved with the school
<b>1 - Strongly Agree</b>	<b>47%</b>	<b>43%</b>	<b>37%</b>	<b>36%</b>	<b>33%</b>	<b>33%</b>	<b>27%</b>	<b>22%</b>	<b>19%</b>	<b>10%</b>
2 - Somewhat Agree	31%	36%	40%	27%	36%	33%	35%	30%	40%	29%
3 - Neutral	20%	16%	19%	33%	27%	31%	24%	44%	28%	45%
4 - Somewhat Disagree	2%	4%	4%	3%	3%	3%	9%	4%	11%	12%
5 - Strongly Disagree	1%	1%	0%	1%	0%	0%	6%	1%	2%	4%

Garden Pl.	N=15	1.8	2.4	2.0	2.1	2.0	1.8	2.6	2.2	2.7	2.8
Fairmount	N=13	1.4	1.2	1.5	1.3	1.6	1.5	1.7	1.8	1.8	2.3
Knapp	N=14	1.7	1.7	2.5	1.9	2.5	2.3	3.9	2.6	2.7	3.2
Cowell	N=24	2.6	2.4	2.5	2.7	2.7	2.8	2.2	2.8	2.5	3.3
Greenlee	N=19	1.8	2.4	1.8	2.4	1.9	2.2	3.3	2.6	2.3	3.2
Smith	N=10	1.2	1.2	1.6	1.8	1.9	2.1	1.5	2.9	2.3	2.7
Whittier	N=8	2.3	2.0	1.8	2.0	2.0	1.8	2.3	1.8	2.8	2.8
Colfax	N=20	1.7	1.5	1.5	1.8	1.6	1.6	1.8	1.7	2.4	2.1

<b>Total</b>	N=123	<b>1.8</b>	<b>1.8</b>	<b>1.9</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.4</b>	<b>2.3</b>	<b>2.4</b>	<b>2.8</b>
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### Scale

Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
1	2	3	4	5

Parent Community Survey Results  
**Benefits of the new playground**

Appendix C - Community Surveys

Average Score Across  
 All Items = 2.1  
 "Somewhat Agree"

		The playground has fostered a stronger sense of community identity	The community has a sense of pride in the playground	The playground is a focal point for community activities	The community has developed a sense of ownership for the playground	The connection with the community is stronger because of the construction process
<b>Total</b>	N=58	<b>2.0</b>	<b>2.0</b>	<b>2.1</b>	<b>2.1</b>	<b>2.2</b>
Standard Deviation		1.4	1.5	1.4	1.4	1.4
Colfax	N=2	1.0	1.0	1.0	1.0	1.0
Fairmount	N=42	2.1	2.0	2.1	2.2	2.1
Garden Pl.	N=2	2.0	2.0	2.0	2.0	3.0
Greenlee	N=2	2.5	3.0	3.5	2.0	3.5
Knapp	N=5	1.8	2.4	2.0	2.4	3.0
Smith	N=1	1.0		1.0	1.0	1.0
Whittier	N=4	2.0	2.0	2.3	1.8	2.3
Range		1.0- 2.5	1.0- 3.0	1.0- 3.5	1.0- 2.4	1.0- 3.5

<u>Scale</u>				
Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
1	2	3	4	5

## Community Survey Results

### Benefits of the New Playground

The new playground has fostered a stronger sense of community identity

The community has developed a sense of ownership for the new playground

The community has a sense of pride in the new playground

The new playground is more of a focal point for community activities

The connection with the community is stronger because of the construction process

<b>1 - Strongly Agree</b>	<b>46%</b>	<b>39%</b>	<b>57%</b>	<b>40%</b>	<b>35%</b>
2 - Somewhat Agree	26%	27%	20%	28%	27%
3 - Neutral	18%	24%	14%	21%	26%
4 - Somewhat Disagree	5%	5%	4%	4%	7%
5 - Strongly Disagree	6%	6%	6%	7%	6%

Colfax N=190	1.7	1.9	1.5	1.9	2.0
Cowell N=69	2.0	2.0	1.9	2.0	2.2
Fairmont N=123	1.9	2.0	1.8	2.1	2.2
Garden Place N=81	2.1	2.0	1.6	1.9	2.2
Greenlee N=44	1.8	2.0	1.7	1.8	2.3
Knapp N=257	2.2	2.3	2.0	2.1	2.3
Smith N=67	1.2	2.0	1.7	2.1	2.3
Swansea N=350	2.1	2.3	2.0	2.2	2.3
Whittier N=65	2.2	2.0	1.7	2.4	2.3

Total N=1246

<b>Average</b>	<b>2.0</b>	<b>2.1</b>	<b>1.8</b>	<b>2.1</b>	<b>2.2</b>
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1	2	3	4	5
Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree

# Community Survey Results

## Level of Participation Since the Installment of the Playground

*I (we) utilize the new  
playground on the  
evenings and weekends  
more now than we did  
before*

*I (we) help with the  
maintenance of the  
playground more now  
than we did before*

*I (we) are involved  
with other school  
activities that involve  
the playground more  
than we were before.*

<b>1 - Strongly Agree</b>	<b>22%</b>	<b>15%</b>	<b>17%</b>
2 - Somewhat Agree	33%	26%	26%
3 - Neutral	26%	36%	32%
4 - Somewhat Disagree	10%	11%	11%
5 - Strongly Disagree	9%	11%	14%

Colfax	N=190	2.5	2.6	2.7
Cowell	N=69	2.6	3.0	2.8
Fairmont	N=123	2.3	2.7	2.7
Garden Place	N=81	2.4	2.8	2.9
Greenlee	N=44	2.5	2.8	2.7
Knapp	N=257	2.6	2.8	2.9
Smith	N=67	2.5	2.6	2.5
Swansea	N=350	2.6	2.9	2.9
Whittier	N=65	2.1	2.4	2.5
Total	N=1246			

<b>Average</b>	<b>2.5</b>	<b>2.8</b>	<b>2.8</b>
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1	2	3	4	5
Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree

# Community Survey Results

## Participation in the Playground Project

	<i>Have you used the new playground at the school</i>	<i>I (we) helped plan the playground</i>	<i>I (we) participated in building the playground</i>	<i>I (we) helped raise money to build the playground</i>	<i>I (we) contributed money or supplies to the playground</i>	<i>I (we) contibuted in-kind services</i>	<i>I (we) provided expertise to help with the playground</i>
% Answered "Yes"	73%	16%	23%	27%	19%	20%	16%

## Community Survey Results Demographics

Name of School:	# of Surveys Returned	% of Surveys Returned
Colfax	190	15%
Cowell	69	6%
Fairmont	123	10%
Garden Place	81	7%
Greenlee	44	4%
Knapp	257	21%
Smith	67	5%
Swansea	350	28%
Whittier	65	5%
Total	1246	100%

### How long have you lived in this community?

Amount of Time	# of Respondents	% of Respondents
1-6 Months	107	9%
7-12 Months	137	12%
1-5 Years	433	38%
6-10 Years	247	21%
More Than 10 Years	229	20%
Total	1153	100%

### Please indicate your connection with the school:

Relationship with School	# of Respondents	% of Respondents
Parent/Guardian	1166	98%
Community Member	20	1.7%
Local Business	3	0.3%
Total	1189	100%





Los estudiantes reciben calidad superior de educación física.	1	2	3	4	5	⊗
Hay sesiones de capacitación disponibles para los maestros sobre cómo usar el patio de recreo como una herramienta educativa.	1	2	3	4	5	⊗

**Otros comentarios relacionados con los beneficios educativos:**

**RENDIMIENTO /COMPORTAMIENTO DEL ESTUDIANTE**

**Desde la instalación del nuevo patio de recreo...**

	De acuerdo		Neutral	En desacuerdo		NA
	<i>Sí, mucho</i> ↓	<i>Sí, algo</i> ↓		<i>Sí, algo</i> ↓	<i>Sí, mucho</i> ↓	
Durante el recreo hay menos comportamiento agresivo entre los estudiantes.	1	2	3	4	5	⊗
Los estudiantes ponen más atención durante la hora de clase.	1	2	3	4	5	⊗
La mala conducta de los estudiantes durante la hora de clase ocurre con menos frecuencia.	1	2	3	4	5	⊗
El nuevo equipo promueve juegos más creativos.	1	2	3	4	5	⊗
La supervisión en el patio de recreo requiere de menos tiempo del maestro.	1	2	3	4	5	⊗
Los niños están más físicamente activos durante el recreo.	1	2	3	4	5	⊗
Los estudiantes interaccionan más con sus compañeros durante el recreo.	1	2	3	4	5	⊗
Los estudiantes se relacionan mejor unos con otros.	1	2	3	4	5	⊗

**Otros comentarios relacionados con el rendimiento del estudiante:**

**Participación de los Padres /Comunidad**

	De acuerdo		Neutral	En desacuerdo		NA
	<i>Sí, mucho</i> ↓	<i>Sí, algo</i> ↓		<i>Sí, algo</i> ↓	<i>Sí, mucho</i> ↓	
Los padres ayudaron a planear el patio de recreo.	1	2	3	4	5	⊗
Los padres participaron en la construcción del patio de recreo.	1	2	3	4	5	⊗
Los padres ayudaron a recaudar dinero para construir el patio de recreo.	1	2	3	4	5	⊗
Los comerciantes locales de la comunidad contribuyeron con dinero o materiales para el patio de recreo.	1	2	3	4	5	⊗
Los padres están más involucrados con la escuela desde la instalación del nuevo patio de recreo.	1	2	3	4	5	⊗
Los miembros de la comunidad utilizan más el nuevo patio de recreo en las tardes y durante los fines de semana.	1	2	3	4	5	⊗
El nuevo patio de recreo ha fomentado un sentido más fuerte de la comunidad.	1	2	3	4	5	⊗
La comunidad ha incrementado el sentido de propiedad para la escuela.	1	2	3	4	5	⊗

La comunidad ha incrementado el sentido de orgullo por el nuevo patio de recreo.	1	2	3	4	5	⊗
El nuevo patio de recreo es ahora el punto central para las actividades de la comunidad.	1	2	3	4	5	⊗

***Otros comentarios relacionados con la participación de los padres /comunidad:***

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**Evaluation of the Learning Landscapes Project**  
**(Sponsored by the Gates Foundation and Denver Public Schools)**

*School Name:* \_\_\_\_\_ | *Position:*     *Teacher*                       *Paraprofessional*

How long have you been at this school?	
What subject(s) do you teach?	
What grade(s) do you teach?	

Very Involved                      Somewhat Involved                      Not at all Involved                      NA  
 ↓    ↓    ↓    ↓

On a scale of 1 to 5, how involved were you with the planning of the playground?	1	2	3	4	5	⊙
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For the following sets of questions, please indicate the extent to which you agree with each statement by circling the number between 1 and 5 that best represents your opinion. Circling 1 means you strongly agree while circling 5 means you strongly disagree. If you have no opinion or the question is not relevant, please circle the “⊙” icon in the far right.

**School/Community Environment**

*Since the installment of the new playground...*

Agree                      Neutral                      Disagree  
*Strongly*    *Somewhat*                      *Somewhat*    *Strongly*                      NA  
 ↓                      ↓    ↓                      ↓

There has been less graffiti on school property.	1	2	3	4	5	⊙
The school spends more time caring for and maintaining the playground.	1	2	3	4	5	⊙
Students are accepting more responsibility for keeping the playground clean.	1	2	3	4	5	⊙
There is enough equipment to accommodate every student during recess.	1	2	3	4	5	⊙
Playground accidents have decreased.	1	2	3	4	5	⊙
Visits to the nurse have decreased.	1	2	3	4	5	⊙
The new playground has improved the beauty of our community.	1	2	3	4	5	⊙
The new playground has created a green space in the community.	1	2	3	4	5	⊙
The playground now provides areas that are developmentally appropriate for multiple ages.	1	2	3	4	5	⊙

*Other comments related to school environment:*

**EDUCATION**

*Since the installment of the new playground...*

Agree                      Neutral                      Disagree  
*Strongly*    *Somewhat*                      *Somewhat*    *Strongly*                      NA  
 ↓                      ↓    ↓                      ↓

Teachers use the playground more than they used to as an area to teach students about various topics.	1	2	3	4	5	⊙
More hands-on experience related to science or other subjects is available for students in the playground.	1	2	3	4	5	⊙
Teachers will be developing plans to incorporate the playground into their curricula.	1	2	3	4	5	⊙
Students receive a higher quality of physical education.	1	2	3	4	5	⊙
Training about how to use the playground as an educational tool is available for teachers.	1	2	3	4	5	⊙

*Other comments related to educational benefits:*

**STUDENT BEHAVIOR/PERFORMANCE**

*Since the installment of the new playground...*

	Agree <i>Strongly</i> ↓	<i>Somewhat</i> ↓	Neutral	Disagree <i>Somewhat</i> ↓	<i>Strongly</i> ↓	NA
There is less aggressive behavior between students during recess.	1	2	3	4	5	⊙
Students are more attentive during class time.	1	2	3	4	5	⊙
The misconduct of students during class time occurs less frequently.	1	2	3	4	5	⊙
The new equipment promotes more creative play.	1	2	3	4	5	⊙
Supervision on the playground requires less teacher time.	1	2	3	4	5	⊙
Children are more physically active during recess.	1	2	3	4	5	⊙
Students interact more with their peers during recess.	1	2	3	4	5	⊙
The students relate to each other better.	1	2	3	4	5	⊙

*Other comments related to student performance:*

**Parent/Community Involvement**

	Agree <i>Strongly</i> ↓	<i>Somewhat</i> ↓	Neutral	Disagree <i>Somewhat</i> ↓	<i>Strongly</i> ↓	NA
Parents helped to plan the playground.	1	2	3	4	5	⊙
Parents participated in building the playground.	1	2	3	4	5	⊙
Parents helped raise money to build the playground.	1	2	3	4	5	⊙
Local community businesses contributed money or supplies to the playground.	1	2	3	4	5	⊙
Parents are more involved with the school since the installment of the new playground.	1	2	3	4	5	⊙
Community members utilize the new playground more on the evening and during weekends.	1	2	3	4	5	⊙
The new playground has fostered a stronger sense of community identity.	1	2	3	4	5	⊙
The community has an increased sense of ownership for the school.	1	2	3	4	5	⊙
The community has an increased sense of pride in the new playground.	1	2	3	4	5	⊙
The new playground is now a focal point for community activities.	1	2	3	4	5	⊙

*Other comments related to parent/community involvement:*



## Evaluation of the Learning Landscapes Project Survey of Parent and Community Participants

Please indicate the extent to which you agree with each of the following statements by circling the number between 1 and 5 that best represents your opinion. Circling 1 means you strongly agree while circling 5 means you strongly disagree. If you have no opinion or the question is not relevant, please circle the “⊙” icon in the far right.

How long have you lived in this community?	
Name of School:	
Have you used the new playground at the school?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Please indicate your connection with the school:	<input type="checkbox"/> Parent/Guardian <input type="checkbox"/> Community Member <input type="checkbox"/> Local Business

<b>PARTICIPATION IN THE PLAYGROUND PROJECT</b>		
Did you help to plan the playground?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Did you participate in building the playground?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Did you help raise money to build the playground?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Did you help contribute money or supplies to the playground?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Did you contribute in-kind services?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Did you provided expertise (i.e. gardening) to help with the playground?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Agree                      Neutral                      Disagree  
*Strongly*    *Somewhat*                      *Somewhat*    *Strongly*    NA  
 ↓                      ↓                      ↓                      ↓

<b>LEVEL OF INVOLVEMENT SINCE THE INSTALLMENT OF THE PLAYGROUND</b>						
I (we) utilize the new playground on the evenings and during weekends more now than we did before.	1	2	3	4	5	⊙
I (we) help with the maintenance of the playground more now than we did before.	1	2	3	4	5	⊙
I (we) are involved with other school activities that involve the playground more than we were before.	1	2	3	4	5	⊙
<b>BENEFITS OF THE NEW PLAYGROUND</b>						
The new playground has fostered a stronger sense of community identity.	1	2	3	4	5	⊙
The community has developed a sense of ownership for the new playground.	1	2	3	4	5	⊙
The community has a sense of pride in the new playground.	1	2	3	4	5	⊙
The new playground is more of a focal point for community activities.	1	2	3	4	5	⊙
The connection with the community is stronger because of the construction process.	1	2	3	4	5	⊙

*Other comments related to parent/community involvement:*