

Measuring Outcomes at High Horses: 2013 Feasibility Study Results

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Background

This study was designed to build on the first outcomes evaluation (OE) pilot study conducted in 2012. The earlier study (see “*Measuring Outcomes at High Horses: Pilot Study Results*” by Cathy Smith Hybels, July 2012) detailed High Horses’ OE requirements and described the use of Goal Attainment Scaling (GAS) for measuring functional gains in elementary school participants in a short-term therapeutic riding (TR) program. The 2012 study provided preliminary evidence that GAS met the organization’s needs for measuring individual-specific gains and for quantifying overall program benefits, but questions remained about its ease-of-use and flexibility. This study further explored those issues and identified factors that might potentially limit the organization’s capacity to employ GAS on a larger scale.

Purpose of the study

The second GAS feasibility study took place during the 3rd year of the program, began a year after the first study, and included the same TR instructors and school system. It mainly focused on the questions: (1) Do the instructors find GAS easier to use the second time? (2) Does GAS facilitate collaboration in goal identification? (3) What factors influence ease-of-use when monitoring progress on multiple TR goals? (4) What collaboration and communication issues aid or impede group efforts among support team members and instructors? (5) What are the training and information requirements of the independent evaluators who assess performance using goal attainment scales?

Program Description and Activities

Before lesson one, a TR instructor went to the school to observe the 8 students selected by their teachers to participate in the TR program. She also met with the teachers to discuss the students’ developmental needs and individualized education programs (IEPs). She summarized the information gathered into student profiles which were used to identify relevant TR goals.

The instructors next prepared lesson plans, matched horses with riders, selected appropriate tack, and recruited 8 trained TR volunteers to participate in the weekly lessons. TR safety and side walking (SW) training was provided for school personnel who assisted students during lessons. Four TR volunteers served as independent evaluators of student goal attainment, having no other involvement in lesson delivery. All participants consented to inclusion in the study.

Each lesson provided opportunities for practicing skills during 60 minutes of un-mounted games, activities, horse grooming and horse leading, and 30 minutes of horseback riding. Four students rode at once. Each support team had 2 SWs and a horse leader, with at least one school SW present to offer wraparound student services through use of common instructional support methods. Instructors assisted riders during mounting and dismounting, but primarily directed riders and support teams with instructions from the center of the ring. Each instructor taught the same 4 students each week during both the un-mounted and mounted activities. Instructors offered a variety of fun and stimulating activities for practicing skills.

GAS Procedures

Having previously identified relevant and meaningful goal areas for the students, the instructors observed their skills during the first riding lesson to determine their baseline performance levels. Afterwards, they created expected performance outcome scales in accordance with GAS methodology (creating 16 TR goals in total). Before lesson 2, each support team was provided with riders’ goals and written instructions on how the teams could best support skill development. As examples, horse leaders were explicitly instructed to wait for audible commands from the rider before moving or SWs were instructed when to offer verbal or physical cues to the rider. After lessons 2-5, each team member was invited to complete a web-based survey asking them to rate the rider’s performance during the lesson in each of their goal areas. These weekly monitoring surveys also requested open-ended comments on what did or did not work well in lessons for each rider. Results were shared with the instructors and teams prior to the next lesson.

The evaluators attended the horseback lessons on week 6 to assess progress using the GAS expected outcome scales created at the program’s start. The evaluators also answered survey questions concerning their evaluation experiences.



Pictured above: High Horses volunteers

Measuring Outcomes: 2013 Results (Continued)

Results

The student goal attainment ratings offer evidence that all 7 students (1 student was absent) made progress towards their goals. Eleven of 14 goals were achieved at the expected levels or above, with 2 students attaining much better than expected performance. Student performance on 3 goals did not meet expected levels during the evaluation period. In those cases, the evaluators noted that distractions (i.e., early arrival of the school bus), insufficient clarity on performance standards for one goal, and insufficient opportunities to demonstrate skills were factors in the lower ratings.

Instructor Gains in Ease of Use. While both instructors characterized goal writing as “challenging,” they also reported that it was “much easier” than in 2012. While neither had received formal training in the interim, both instructors had practiced writing TR goals in other 2012 TR lessons. Direct observation of one revealed that it took on average 15-20 minutes to create a performance outcome scale, compared to the 2+ hours average per scale observed in 2012. The second instructor reported >20 minutes for each goal, but said that it was “much less” time than needed in 2012. Both attributed the gains to being able to access examples of TR performance outcome scales, as well as familiarity with the entire GAS process, responses consistent with published reports in the GAS literature. Both reported the limited time available to assess baseline performance on skills (4 students, 2 goal areas each, in 30 minutes) as the most formidable challenge to writing good goals.

Collaboration in Goal Identification. Both instructors reported it was “definitely easier” to identify student goals in 2013, even though they were required to identify 16 goals in 2013, versus 6 in 2012. Instructor One stated that understanding the GAS process helped in directing questions and organizing thoughts as she observed students at school and collaborated with teachers. She reported high satisfaction with the success of that collaboration, an assessment corroborated by the school’s special educator.

Ease-of-Use With Multiple Participant Goals. Volunteers reported no difficulty supporting multiple goals. Evaluators reported no difficulty rating performance in 2 goal areas. However, the instructors reported nearing “the tipping point” in lessons from the demands of trying to monitor progress on 8 goals while simultaneously focusing on lesson content and directing 4 riders, 4 horses, and 12 team members.

Instructor-Team Collaboration. Instructors and teams agreed that collaboration is enhanced with shared written goals and instructions. Most team members wanted more instruction than provided. Instructors reported that the survey feedback was very useful to them and allowed them to modify lesson plans to enhance learning opportunities.

Implementation of GAS in a TR Program for Students

	2011	2012	2013
Week 1: Instructors Identify Goals & Write Expected Performance Outcome Scales			
Written goals for every student		✓	✓
Goals based on IEPs & teacher input			✓
Goals shared with TR support team		✓	✓
Teams provided written instructions		✓	✓
Weeks 2-5: Instructors and Teams Deliver Instruction & Monitor Progress			
Weekly team surveys to assess progress		✓	✓
Survey results shared within teams			✓
Week 6: Independent Evaluators Measure Goal Attainment			
Instructors write student progress notes	✓	✓	✓
Independent ratings of performance		✓	✓
Program outcomes shared with school		✓	✓
Outcomes linked to IEP goals			✓

The chart above details program changes introduced with the Goal Attainment Scaling (GAS) method.

However, despite increased communication, the instructors, 40% of the team members, and 75% of evaluators reported team non-compliance with instructions as a threat to the success of OE efforts.

Independent Evaluator Requirements. None felt additional training was necessary to fairly evaluate performance beyond the information already provided in the performance outcomes scales, though 2 scales were criticized for a lack of clear distinction between performance levels. Most felt that a volunteer with 1 year of TR experience could adequately serve.

Discussion

The pilot studies provide evidence that GAS is a useful method for measuring and reporting functional gains on individualized TR goals and satisfies all of High Horses’ OE system criteria as stated in 2012. The 2013 study additionally detailed how GAS facilitated collaboration in goal identification, improved collaboration among teams, was flexible in accommodating multiple goals, and was reported easy-to-use by volunteers. This study also demonstrated that writing goals became easier for instructors with repetition, coaching, and examples.

Expanded use of GAS at High Horses is recommended. Broader implementation would best be accompanied by attention to the factors that emerged in the pilot studies as necessary for its success: provision of adequate time for instructor evaluation of baseline performance, instructor goal writing coaching and access to examples, enhanced opportunities for team sharing, enhancements to volunteer training to emphasize compliance with instructions, routine volunteer performance feedback, and coordination of participant goals and skill levels in the formation of lesson groups to prevent overloading demands on instructors as they monitor progress.