

# Posting Horse Show Patterns Before Youth Show Creates Positive Experience for Youth and Adults<sup>1</sup>

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## Abstract

Members of the South Dakota 4-H Horse and Pony Project and their parents or leaders were surveyed about their experiences with receiving access to horse show patterns in advance of the 2012 State 4-H Horse Show. Authors anticipated improved comfort and performance with accompanied reduction in stress and anxiety in youth. Youth and adults reported this to be helpful to them, as they felt their stress and anxiety was not only minimized, but also that their ability to learn the patterns was maximized. Youth's ability to perform, as well as their ability to have fun at the show, were also increased in the eyes of youth and adults alike. 4-H Beginners (ages 8-10) and Juniors (ages 11-13) expressed a greater preference for accessing patterns in advance of the horse show than Seniors (ages 14-18), but age did not play a role in how youth rated their stress, anxiety, fun, comfort, or their abilities to learn and perform the patterns. Adults also gleaned benefits from access, rating the effects on themselves similarly to their youth in every category except enhancing their personal comfort. An overwhelming majority of both youth (98%) and adults (95%) prefer early access to horse show patterns in the future.

## Introduction

4-H Horse programs provide excellent opportunities for youth to learn about and interact with horses. Development of life skills and positive opportunities for learning are evident. Horse project members participating in non-riding horse contests in Nebraska reported learning how to handle pressure, realizing the importance of learning and following rules and learning how to plan ahead as just a few of the life skills moderately

or strongly attributed to their 4-H projects (Anderson and Karr-Lilienthal, 2011). Additionally, development of horsemanship and total life skills has been found to go hand in hand (Smith et al., 2006).

Participation in a horsemanship related activity has been associated with positive self-esteem (Saunders-Ferguson et al., 2008). Further, youth who were enrolled in 4-H horse knowledge contests for several years generally perform better in those contests than youth competing for the first or second time (Nadeau et al., 2007). Thus, it would be logical to assume that youth who have access to horse show patterns for longer periods of time would become more confident in their abilities.

During horse shows, youth are frequently required to exhibit a specific pattern or routine with their horse. These patterns are designed to test the youth's knowledge and ability to perform important maneuvers with their horses. Traditionally, patterns at youth horse shows have been posted on premise, often in as little as one hour in advance of the competition. Breed and other large industry shows are trending towards providing open access to patterns well in advance of horse shows. For example, the All American Quarter Horse Congress, the largest single breed horse show in the world, has been posting their patterns in advance for the past 8 years. In effect, this allows contestants to be judged on their mastery of skills and communication with horses without also testing their ability to quickly memorize and perform a pattern.

Learning is a dynamic process, which may be enhanced when learners have more time to spend with a topic. Brye and colleagues (2005) evaluated perfor-

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mance of graduate-level students on an open-note make-up exam, identical to an initial exam, but administered twelve days later. Performance on the second exam was enhanced over the initial exam. While access to notes during the exam may have contributed to these improvements, the extra time to work with a familiar set of problems cannot be discounted as a benefit. Student performance and perceived-stress in a veterinary virology course were improved during exams where students were allowed to prepare and use crib sheets as compared to exams where this was not permitted (Vogelweid et al., 2014). Further, physiological and perceived stress at the time of learning can impair memory function (Schwabe and Wolf, 2010). Thus, the context in which learning occurs can greatly impact learning, performance and stress.

Posting horse show patterns in advance is a “new” way to deliver information to youth and may impact comfort level, performance and show experience of participants. However, there are no data published to date which support potential benefits or pitfalls associated with early access to horse show patterns. The objective of the current study was to characterize the perceived impacts of offering patterns in advance of a 4-H horse show on a myriad of factors including stress, anxiety, comfort, fun in youth participants and associated adults and as well as the desired learning outcomes of the ability of youth to learn and to perform.

**Materials and Methods**

**Pattern Availability**

SDSU Extension and HorseShowPatterns.com partnered to provide online access to patterns for the 2012 South Dakota State 4-H Horse Show. The State Horse Show Judges provided patterns, which were in accordance with the SD 4-H Horse Project Show Guide rules in advance. Patterns were produced by HorseShowPatterns.com and posted two weeks prior to the horse show. In an attempt to alert horse show participants to the availability of patterns, they were promoted through iGrow Horses (a service of SDSU Extension), Extension personnel and HorseShowPatterns.com. Duplicate patterns were also posted on-site at the state horse show.

**Surveys**

This project and survey were approved by the South Dakota State University’s Internal Review Board (approval # IRB-1209006-EXP). QuestionPro surveys were developed to target youth participants and adults regarding their experiences. Parallel surveys were created for youth and adults to glean insight to how early access to patterns make have affected the overall horse show experience. Surveys were posted approximately one month after the state horse show, promoted and

**Table 1. Responses of youth regarding the availability of horse show patterns before the show on anxiety, comfort, stress, and fun.**

Question	Frequency of Response (%)					N
	1	2	3	4	5	
How did access to patterns affect your anxiety level?	38.71	22.58	25.81	9.68	3.23	31
How did access to patterns affect your comfort level?	3.13	18.75	21.88	18.75	37.50	32
How did access to patterns affect your stress level?	36.67	23.33	30.00	6.67	3.33	30
How did access to patterns affect your level of fun at the show?	6.67	0.00	30.00	30.00	33.33	30

Responses based on a scale of 1-5 (1=minimized, 3=neutral, 5= maximized).

kept active for one month. Youth were asked a series of questions pertaining to their preference of pattern posting for the next show and how early access to the patterns affected a variety of variables (Table 1), most importantly their ability to learn and perform as a result of pattern access. Adults were asked to reflect of how early access affected them and how they perceived it to affect their youth.

**Statistical Analysis**

A Kruskal-Wallis test was performed using SAS (Cary, NC) to determine differences in preference for accessing patterns prior to the show (scored on a scale of 1-5). Wilcoxon Signed Rank Tests were used to determine differences in adult perceptions of how early access affected them versus how they believe it affected their youth. Differences were considered significant with a P-value of less than or equal to 0.05.

**Results and Discussion**

**Youth Survey**

Forty-eight youth from the South Dakota 4-H Horse Project, including 14 Beginners (ages 8-10) and 17 each of Juniors (ages 11-13) and Seniors (ages 14-18), completed the survey. Of those, 33 youth, or just over 68% accessed the patterns before the show and were therefore able to continue answering questions. From those youth who accessed the patterns beforehand, 93.75% practiced the patterns before the show. Youth reported a preference for patterns posted in advance of the show, with 84.38% indicating they “very much so” preferred early access. Many youth typically practice patterns in preparation for horse shows and they also felt that they performed better in the 2012 State 4-H Horse Show because of having advanced access to the patterns. Thus, the general attitude of youth towards accessing patterns in advance of the State Horse Show was positive. These findings of positive attitudes towards accessing horse-related information online are similar to (Denniston and Callahan, 2005) who found that people who accessed information online felt more in touch with 4-H and informed.

In an attempt to assess specific emotions or consequences regarding access to patterns, a series of more specific questions were asked. When asked if early access to patterns was harmful (1), or helpful (5), over 90% of youth selected 5 on a scale of 1-5. Table 1 demonstrated the distribution of responses when youth were asked to rank their level of anxiety, stress, comfort and fun at the horse show in relation to accessing the

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patterns early on a scale of 1-5, with 1 being minimized and 5 maximized. Over 60% of youth replied with a 1 or 2 (indicating general minimization) when asked how they thought their stress and anxiety levels were impacted with early access. Fifty-six percent of youth selected a 4 or 5 in response to patterns affecting their comfort level at the show, with 21% remaining neutral. Ability for youth to have fun at the show was modestly impacted with 63% of youth responding with a 4 or 5 (representing a maximization of fun). Based on these data, horse show patterns should be posted in advance of a youth horse show in order to reduce negative indicators such as stress and to increase positive indicators, such as fun and comfort.

Learning and performance are also important pillars of a youth event. Access to horse show patterns maximized the perceived ability of youth to learn the patterns and yielded a positive impact on their ability to perform during the show (Table 2). The fact that youth felt their ability to learn the pattern was maximized is paramount for this type of youth event.

Eighty-four percent of youth responded with a 4 or 5 (1=no, 5=very much so) when asked if they preferred to receive patterns prior to the show. Beginners and Juniors placed more importance on receiving patterns in advance than Seniors ( $P < 0.02$ ). When asked if youth believed they performed better, about their ability to learn the patterns and how patterns affected their ability to show, 78, 90 and 80% of youth, respectively, responded with a 4 or 5, indicating these parameters were positively impacted. Thus, early access to horse show patterns maximizes how youth feel they were able to perform on these important learning outcomes. The fact that youth believed their ability to learn and to perform was improved with advanced access to patterns is likened to improved performance on exams for graduate students who had access to exam questions in advance of examinations (Brye et al., 2005).

Age of youth did not greatly impact these survey responses. No differences existed between Beginners, Juniors, or Seniors in response to how access to the patterns affected performance ( $P > 0.9$ ), anxiety ( $P > 0.19$ ), comfort ( $P > 0.53$ ), stress ( $P > 0.17$ ), fun ( $P > 0.26$ ), ability to learn patterns ( $P > 0.29$ ), or ability to show their horse ( $P > 0.17$ ) existed. Therefore, while Seniors placed less importance on having access to patterns, their responses to how access affected them was no different than the other age groups.

### Adult Survey

One hundred thirty-two adults completed the survey, including 85 parents, 28 leaders, 11 Extension employees and eight volunteers, advisors, or horse

**Table 2. Pattern access preferences of youth and perceived effects on performance.**

Question	Frequency of Response (%)					N
	1	2	3	4	5	
Do you prefer to have patterns posted several days in advance of the show? <sup>§</sup>	6.25	0.00	9.38	0	84.35	* 32
Do you feel that your performed better this year as a result of having the patterns ahead of time? <sup>§</sup>	3.13	0.00	19.75	28.13	50.00	32
How did access to the patterns affect your ability to learn the patterns? <sup>#</sup>	0.00	0.00	9.68	22.58	67.74	31
How did access to the patterns affect your ability to show your horse? <sup>#</sup>	6.45	6.45	6.45	45.16	35.48	31

\* Beginners and Juniors reported a greater preference for accessing patterns in advance than Seniors ( $P < 0.02$ ).

<sup>§</sup>Responses based on a scale of 1-5 (1=no, 3= neutral, 5=very much so).

<sup>#</sup>Responses based on a scale of 1-5 (1=minimized, 3=neutral, 5= maximized).

**Table 3. Adult assessment of pattern access on youth learning and performance.**

Question	Frequency of Response (%)					N
	1	2	3	4	5	
Was having access to the patterns hurtful or helpful to your child? <sup>^</sup>	0.00	1.49	8.96	4.48	85.07	67
Do you feel like your child performed better this year because of having patterns ahead of time? <sup>§</sup>	1.41	1.41	22.54	33.80	40.85	71
How did access to the patterns affect your child's ability to learn the patterns? <sup>#</sup>	1.43	1.43	12.86	25.71	58.57	70

<sup>^</sup>Responses based on a scale of 1-5 (1=hurtful, 3= neutral, 5=helpful).

<sup>§</sup>Responses based on a scale of 1-5 (1=not so much, 3= neutral, 5=very much so).

<sup>#</sup>Responses based on a scale of 1-5 (1=minimized, 3=neutral, 5= maximized).

**Table 4. Adult assessment how access to patterns affected themselves and their children.**

Question	Frequency of Response (%)					P-value	N
	1	2	3	4	5		
How did access to the patterns affect your child's anxiety level? <sup>#</sup>	47.14	12.86	35.71	2.86	1.43	0.81	70
How did access to the patterns affect your anxiety level? <sup>#</sup>	44.12	17.65	29.41	5.88	2.94		68
How did access to the patterns affect your child's stress level? <sup>#</sup>	38.24	17.65	36.67	5.88	1.47	0.71	68
How did access to the patterns affect your stress level? <sup>#</sup>	33.82	20.59	39.71	4.41	1.47		68
How did access to the patterns affect your child's comfort level? <sup>#</sup>	1.43	4.29	30.00	20.00	44.29	0.052	70
How did access to the patterns affect your comfort level? <sup>#</sup>	4.29	4.29	32.86	28.57	30.00		70
How did access to the patterns affect your child's level of fun at the show? <sup>#</sup>	0.00	0.00	44.29	30.00	25.71	0.63	70
How did access to the patterns affect your level of fun at the show? <sup>#</sup>	0.00	1.45	44.93	30.43	23.19		69

<sup>#</sup>Responses based on a scale of 1-5 (1=minimized, 3=neutral, 5= maximized)

council members. Adults reported 76.29% of their youth accessed the patterns, with 97% of those practicing before arrival at the show. Adults corroborated the youth responses by indicating that youth in fact typically practice patterns before horse shows. Eighty-nine percent of adults responded with a 4 or 5 when asked if access to patterns was hurtful (1) or helpful (5) to their child, indicating a belief that accessing patterns was helpful to their children. From the adult's perspective, youth's ability to not only learn (84% responded with 4 or 5), but also to perform the patterns (74% responded with 4 or 5) was maximized by having prior availability of patterns.

Adults were additionally asked to respond to a similar series of questions, first regarding how they perceived access to affect their youth and second how access affected them (Tables 3 and 4). Adults responded similarly ( $P = 0.81$ ) to youth regarding anxiety and stress ( $P = 0.71$ ) being reduced and ability to have fun at the show ( $P = 0.63$ ). However, adults tended to perceive the comfort level of the youth (64% of responses were 4 or 5; 1=comfort was minimized and 5 = comfort was maximized), to have been maximized more than their own (58% of responses were 4 or 5;  $P < 0.052$ ).

The survey respondents included 48 youth and 132 adults. Sixty-four percent of the adult responses were submitted by parents with the remainder of responses provided by leaders, volunteers and Extension employees. Surveys were distributed to email contacts provided by each family when enrolling in the State Horse Show. Some parents may have asked their kids to fill out the survey while others may have responded themselves on behalf of the family. Regardless of who responded, the message provided by youth and adults is consistent. An overwhelming majority of both youth (98%) and adults (95%) prefer early access to horse show patterns in the future.

### Summary

Providing access to horse show patterns in advance of a youth horse show may have many benefits to everyone involved. Youth are faced with a myriad of responsibilities on show day including feeding, grooming and exercising of the horse, ensuring proper appointments of both horse and self, knowing when to be prepared ring-side and finally the pressure to perform publicly. In addition, with the pressure of learning a pattern only hours in advance of the performance and the participants are now faced with additional stress. Access to patterns allows youth time to learn and practice patterns they will be tested on in the time and fashion best suited to them and also for reflection in the days leading up to a horse show. While a direct side-by-side comparison of offering early or late access to patterns was not completed in the current study, both youth and adults responded positively to early access indicating perceived benefits for the show experience, learning and performance in youth.

### Literature Cited

- Anderson, K.P. and L. Karr-Lilienthal. 2011. Influence of 4-H horse project involvement on development of life skills. *Journal of Extension* 49(5).
- Brye, K.R., M.C. Savin and E.E. Gbur. 2005. Graduate-level science classes: How important are extra time, open notes and book when evaluating students with calculation-oriented exams? *NACTA Journal* 49:2-9.
- Denniston, D.J. and M. Callahan. 2005. The effectiveness of an equine extension website in delivering important 4-H horse project information to youth, leaders and extension agents. *NACTA Journal* 30-34.
- Nadeau, J., E. McCabe Alger and T. Hoagland. 2007. Longitudinal study of the general knowledge of 4-H horse members. *Journal of Extension* 45(5).
- Saunders-Ferguson, K., R.V. Barnett, G. Cullen and S. TenBroeck. 2008. Self-esteem assessment of adolescents involved in horsemanship activities. *Journal of Extension* 46(2).
- Schwabe, L and O.T. Wolf. 2010. Learning under stress impairs memory formation. *Neurobiology of Learning and Memory* 93:183-188.
- Smith C.E., A.M. Swinker, P.M. Comerford, R.B. Radhakrishna and T.S. Hoover. 2006. Horsemanship and life skills of youth in horse programs. *The Professional Animal Scientist* 22:89-93.
- Volgelweid C.M., T. Kitchel and A.H. Rice. 2014. Veterinary students' use of crib sheets in preparing for learning and reducing stress. *NACTA Journal* 58:135-139.