Abstract

Educators are searching for effective interventions to address the problems of adolescents dropping out of high school. If major threats to youth are those adversities that undermine basic protective systems for development (Masten, 2001), then efforts to promote competence and resilience in at-risk children should focus on strategies that protect or restore the efficacy of these basic systems.

Equine Assisted Learning (EAL) is a relatively new field that, being able to teach such strategies with the horse providing immediate and meaningful feedback. The EAL learning process is planned and guided, with the youth being able to address and alter their maladaptive behaviors in a new and challenging environment.

Currently there is a pronounced lack of quantitative research to substantiate the effectiveness of EAL. The EAL learning process is planned and guided, with the horse providing immediate and meaningful feedback. The EAL learning process is planned and guided, with the youth being able to address and alter their maladaptive behaviors in a new and challenging environment.

Resilience and Motivation

Brook Hill Farm provides EAL combined with traditional tutoring to teach resilience-inducing skills and increase motivation to improve school performance of at-risk youth. Teaching is action based and occurs while the youth interact with their immediate environment, including the people, horses, and situations involved. The goal is for them to address and alter their maladaptive behaviors.

Resilience-inducing skills through EAL (Burgon, 2011):
- **Confidence & self-esteem:** Youth are given the responsibility for caring for a rescue horse, so that growth in self-esteem and self-efficacy can be gained.
- **Sense of mastery and self-efficacy:** Working with horses allows the youth to develop successful coping strategies and to successfully overcome challenges.
- **Development of empathy through horses:** Youth are able to display and feel attachments and empathy for animals and transfer this to working and personal relationships.
- **Opening of positive opportunities:** Participating in structured equine-related activities can provide a “normalizing” experience and offers the youth the opportunity to join, or re-join the mainstream society.

Deliberate Practice

Research has shown that how expert one becomes at a skill has to do with how one practices, rather than just how often the skill is repeated (Ericsson et al., 1993). Deliberate practice breaks down the required skills and focuses on improving those skill chunks during practice or day-to-day activities, often paired with immediate coaching feedback. The goal is for the youth to transfer their new life skills to the classroom and beyond.

Life skills taught through deliberate practice at Brook Hill:
- Planning
- Organization
- Creating a work ethic
- Improving concentration (creating a longer attention span)
- The importance of practice
- Being able to self-regulate
- Reflect on the results of their actions.

Brook Hill operates year round for at-risk youth with specific disabilities or from low economic backgrounds. The youth participate twice a week in 3 hour sessions, 50 weeks a year, with the majority of the youth participating for at least 2 years. The youth transfer what they learn and are able to participate in mainstream organizations, such as those shown below:

Assessment & Results

Dropout Rates

In a first step to evaluate the effectiveness of Brook Hill Farm’s approach, we compared high-school dropout rates of Brook Hill alumni (N=52) to comparable cohorts based on the State of Virginia Graduation Completion Cohort scales.

Depending on county and student type, average dropout in the 2008-2014 period ranged from 4-21%, with higher rates for at-risk students (shown in 2 rightmost categories).

In the same period, all Brook Hill alumni graduated from high school. In total 103 youth have completed the program since Brook Hill Farm’s opening in 2001. All the at-risk youth from Brook Hill have finished high school, and even more importantly, all have gone on to further their education.

Match lengths

In line with earlier research (e.g., The National Collaboration of Youth, 2001, and Herrera, 2007), exploratory analyses of our data revealed positive associations between match length and outcomes. Longer matches between horse and student and length of time in the program lead to stronger impacts. This might be the case because a longer match provides the time needed to build solid, trusting relationships, an important factor in developing resilience (Masten, 2003).

Resilience scale

To further test the effectiveness of our approach, we are currently developing a new self-report measure that tests the four categories of resilience-inducing skills shown on the left. The scale will be given to two groups:
- The at-risk youth currently at Brook Hill Farm
- At-risk youth in alternative education in the public schools in the surrounding counties/city

This part of our study is ongoing.

Conclusion

Our results suggest that participation in a long term EAL program combined with traditional tutoring is an effective intervention to prevent high-school drop outs in at-risk youth aged 12-18.

In future research we plan to look in more detail at how the different components of our program contribute to building resilience and mastering life skills that are needed to become successful members of society.

References


Virginia Cohort Reports (2014). Downloaded from: http://sвесе.сее/dое.сее/stаtistиксо/gрадuаtіоn_соmрlеtіоn/cohоrt_reports/