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The Effects of Equine Assisted Learning on Emotional Intelligence Competencies and Leadership Skills

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The Effectiveness of Equine Assisted Learning on Emotional Intelligence and Leadership Skills

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Abstract

Since the development and understanding of the term emotional intelligence (EI), researchers and businessmen alike have strived to find a way to improve EI competencies. Equine-Assisted Learning (EAL) is a branch of Equine Therapy that uses the horse to facilitate change in humans. In recent years, EAL has been applied to the field of leadership development. Can a horse intrinsically instill competencies that effect leadership skills in humans? There is limited literature available on this subject, therefore, the aim of this study stood to add to the body of knowledge and advocate the need for future research. This study issued a questionnaire to 32 participants of an Equine Guided Leadership Education (EGLE) workshop coached by Lissa Pohl based out of Lexington, Kentucky whose agenda focused on EI concepts that build leadership skills. A thematic analysis of the responses was conducted. Results indicated that Equine-Assisted Learning may be an effective means of developing emotional intelligence competencies, specifically self-awareness and social-awareness, regardless of age, gender, or level of previous experience of the participant. However, since a comparison group was unavailable no direct conclusions can be drawn regarding its efficacy in comparison to a traditional classroom setting.

Keywords: equine-assisted learning, leadership development, emotional intelligence

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I would like to thank Splinter-Watkins for bringing a passion of mine into both my educational and professional future, helping me to develop my ideas for this Honors Thesis, and introducing me to a new world of horsemanship; namely Lissa Pohl and her EGLE workshops.

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"The horse is a mirror to the soul.

Sometimes you won't like what you see.

Sometimes you will."

-Buck Branaman

The Effectiveness of Equine Assisted Learning on Emotional Intelligence and Leadership Skills

In the fast-paced world we live in today, businesses around the globe are searching for innovative ways to get ahead. With a $14 billion industry in the U.S. alone, leadership development has seen several unique approaches (Kaiser & Curphy, 2013). While these companies manufacture pioneering products, services and ideas, some are turning to simpler methods for the cultivation of their leaders. Throughout history, great leaders have been depicted with their mighty steed underneath them carrying them through battle and on great journeys. The relationship between man and horse is so significant that 100s of years later we still know the name of George Washington's favorite horse, Nelson (Thompson, 2017). With a rich history between humans and their horses it's no surprise we have continued to reinvent the horse into its newest title: teacher. Equine-assisted learning (EAL) is a field that stems off therapeutic riding whose courses use the horse to facilitate development. Due to similarities in the nature of the horse and the relationship between leader and follower, EAL has been applied to developing leadership competencies. The question left now is simple- does it work?

IQ vs. Emotional Intelligence

For years the world lacked a concrete means to measure and define intelligence on a standard scale. In the early 1900s, German Psychologist, William Stern coined the term IQ as an acronym for *Inteligenz-quotient*. It was not until 1916, however, that French psychologists Alfred Binet and Theodore Simon produced the Binet-Simon scale, the first standard IQ test. Two years later Stanford University psychologist Lewis Terman adapted the test to the American public as the Stanford-Binet Intelligence Scale and in 1955 IQ was modernized into the Wechsler Adult Intelligence Scale (WAIS). This test gave a single score based on the test-taker's results and the results of others in their same age-group that averaged at 100 (Hally, n.d.). This "intelligence test" does a great job of relaying how well an individual does with math, memory, and data analysis, but is that all that goes into intelligence?

For 100 years IQ scores were thought to be the best way to find the smartest, most successful people. However, in 1997, after years of research, Mayer and Salovey published their paper *Emotional Intelligence as a Standard Intelligence,* which officially recognized Emotional Intelligence (EI) as a reliable standard of intelligence. Emotional intelligence is defined as:

> The ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to access emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth (Salovey, Brackett, & Mayer, 2004, p. 35)

EI is broken down into four tiered branches: perceiving emotion, using emotion to facilitate thought, understanding emotions, and managing emotions. *Perceiving emotion*, considered the simplest EI ability, concerns the accuracy with which an individual can identify emotions and emotional content through nonverbal expression. It is through this skill that one can observe a tense body-stance and furrowed brow and discern anxiety or look at a painting of a mother and child and sense love. The ability to *use emotion to facilitate thought* requires the capacity of the emotion to enter into the cognitive system and guide thinking. This skill directs thinking by gauging what emotions are being used and prioritizing what is truly important. *Understanding emotion* is a skill that involves understanding emotional messages and the actions associated with them. When someone fully understands these messages, they couple comprehension and reasoning. The final, most complex tier of Mayor and Salovey's model of emotional intelligence is *managing emotions.* This skill means that the individual can experience emotion while not becoming overwhelmed. With the power of modulation, these individuals can understand emotion deeply yet use its essence to promote personal and social goals (Mayor, Salovey, Caruso, & Sitarenios, 2001). These skills are pivotal in the success of one's career and personal life, so it is no surprise that soon a means of measuring EI would become essential.

The Measurement of Emotional Intelligence

Through these four categories from figure 1., several means of measuring EI, similar to measuring IQ, were developed (Goleman, 1998; Caruso, Mayer, Salovey, Sitarenios, 2001). The majority of these measurement tools are self-assessment, meaning the person being tested analyzes their own behavior and chooses answers accordingly.

These have been found to be a reliable means of assessment (Tapia, 2001). A leading researcher in the field of Emotional Intelligence, Daniel Goleman, found that neurological givens effect the way we respond to certain situations and that EI could in fact be measured similarly to IQ (Goleman, 1998). Since his pioneering research, several other methods have developed including the Hay 360 Emotional Competence Inventory (Watkin, 2000) and the Mayer Salovey Caruso Emotional Intelligence Test, or MSCEIT. These tests are best at distinguishing low EI individuals from high, but lack in their ability to differentiate high scores from highest (Fiori et al., 2016). While there is a plethora of interest in EI, a reliable means of measurement is still very controversial.

Emotional Intelligence and Leadership

In contrast to IQ, emotional intelligence considers the way one responds to predict whether or not that person can lead a major organization to timely success. This takes a leader. According to several researchers, Mayor and Salovey (2001) included, emotional intelligence is more influential on distinguishing higher achieving leaders than traditional IQ tests. Gardner (1995) maintained that traditional intelligence accounts for only 20% of the factors in professional success. In a real-world study by the Hay Group, the question became not if there were impacts of EI on performance, but rather how fast and by how much. Sales associates with weaker emotional intelligence competencies sold on average $60,000 less than their stronger counterparts. In skilled IT departments, the top 1% of programmers produced 1,272% more than the average worker; however, the differentiators were not computing skills, but rather EI competencies such as collaboration and teamwork. The study also found that for top leadership positions, EI is more than 85% of what sets top performers apart from the average. These emotional

intelligent leaders' divisions outperformed annual earnings goals by 20% (Watkin, 2000). The numbers truly speak for themselves.

Since emotional intelligence has been found to have a larger correlation to leadership than personality (Gardner, Palmer, & Stough, 2003) the natural progression of the field after finding a way to measure one's EI was to formulate a means of improving it. This means gaining a competitive edge in their field. Since this development, EI has taken the leadership and business world by storm. There are countless programs that work to develop emotional intelligence and general leadership skills for companies and groups- bringing in CEOs, managers, and students alike. Today it is apparent that there is a lack of research on the effectiveness of leadership development programs (LDPs) due to the tedious nature of defining and measuring personality traits. Companies look for cost-efficient trainings that will give them the best leaders for the right price- which will vary depending on the nature of their work. It has also been found that these programs are most effective when the right person takes them. Age, training, and title can all effect the effectiveness of a leader, and those must be taken into account in order to get the best results (Kirchner & Adkere, 2014). While there are some research gaps, research has found LDP's particularly beneficial to the health-care field. Rush University researchers identified statistically significant relationships between patient satisfaction scores, strategically aligning leadership development, and incorporating administrative fellowship. This means that in future studies with larger sample sizes, there is evidence that LDPs are another useful strategy for improving patient experience (Li, Barth, Garman, Anderson, & Butler, 2017). The need and want for effective LDPs is apparent, but reliable data regarding which type of program will yield the best results is slim.

Equine Assisted Learning

There are hundreds of programs that are used to improve leadership abilities, and some do so in unique, unorthodox manners. One of these is known as Equine-Assisted Learning, or EAL. Literature may also refer to this as Equine-Facilitated Learning, or Equine-Assisted Experiential Learning. These are defined by PATH, Intl., the governing body of equine therapies, as "an experiential learning approach that promotes the development of life skills for educational, professional and personal goals through equine-assisted activities (Smith, 2017)." Using the age-old relationship between man and horse, mentors steer participants toward growth through collaborating with the horse and internal reflection. EAL found a natural home in the field of leadership development, letting the nature of the horse influence the nature of the leader.

A typical EAL Leadership Workshop, also called Equine Guided Leadership Education, consists of a full or half-day agenda at a local equine facility. Workshop attendees who were instructed to come in comfortable clothing converge to begin the session with their team members. First, introductions are made for everyone in the group, including participants, coaches, and horses. Next, basic safety measures to keep in mind when working with the horse are presented, including body-language to observe that may predict the horse's behavior. Typically, attendees may begin simply by entering an arena of loose horses and observing the horses' reactions to their presence or movements, as well as their own feelings as they approach the animal. After some reflection, the participants will begin with simple grooming or leading exercises in order to become accustomed. Exercises gradually build in intensity and are guided by the coach's instructions and reflections. Working with the horse, coaches guide participants to see the

connections between their own lives and interacting with the horse (Stock and Kolb, 2016; Jayne, 2009).

Since there is limited study on the field of EAL/EGLE, consisting of mostly anecdotal evidence of observations made by practitioners, a dominant theory base is hard to pin point. There is room for discussion that EAL works with the horse in an exciting blend of Experimental Learning Theory and Authentic Leadership Development Theory, two fields in which there is a growing knowledge base.

Experimental Learning Theory: Experimental Learning Theory, ELT, defines knowledge as "the process whereby knowledge is created through the *transformation of experience*. Knowledge results from the combination of grasping and transforming experience" (as cited in Kolb, 2015, p. 51). Kolb (2015) presents a 4-stage cycle associated with ELT: Concrete experience, reflective observation, abstract conceptualization, and active experimentation. In a very practical sense, sessions with the horse find basis in this model. Participants typically begin with concrete interactions with the horse. Throughout the day, as they interact further with the horse and each other they will reflect on their experience and find ways in which it can apply these abstract ideas to their everyday lives. Finally, the equine session elicits active experimentation as each exercise builds on previous, furthering the connection made with the horse and themselves (Stock & Kolb, 2016). Guthrie and Jones (2012) state that this reflective property of ELT bypasses learning and creates a lifelong characteristic for building leadership characteristics.

Authentic Leadership Development: On a conceptual level, EAL can be closely related to Authentic Leadership Development Theory. At the 2004 Gallup Leadership

Institute Summit, an article was produced defining Authentic Leadership and narrowing the key concepts of its respective theory. In this overview of Authentic Leadership Development (ALD), it was found that several models independently developed the same key concepts for Authentic Leadership (AL) and ALD Theory. Key concepts include self-awareness, self-regulation, authenticity in practice, positive organizational behavior, transparency, and leadership development initiatives (Avolio & Gardner, 2005). Lissa Pohl, an expert in the field of EAL, reported after surveying literature from the 90s to today and witnessing first-hand through leadership coaching four competencies in which she works to develop in her clients; awareness of self and others, the ability to give and receive feedback, proper action in response to stimulus, and development of somatic intelligence, or "mind and body unity" (Pohl, 2015). Of the four concepts presented by Pohl (2015), they are all either explicitly or implicitly encompasses in this theory. The Summit believes that Authentic Leadership can make a fundamental difference by "helping people find *meaning and connection* at work" (Avolio & Gardner, 2005).

Why Horses?

Equine-Assisted Learning utilizes a connection to horses man has felt for centuries but has just recently began to gather scientific data to back. The horse-human relationship has always consisted of the horse being a loved work animal. They feed humans physically by plowing their fields, feed humans socially by performing as race and show horses, and they feed humans mentally by working to instill competencies that bypass the arena and can be used in everyday human-human communication. The horses used in EAL serve as the *modern work horse*.

Recalling Mayor and Salovey's (2001) four branches of emotional intelligence, we can draw clear connections between the incorporation of horses into LDPs. Horses are naturals at *perceiving emotion.* A recent study has found that horses can detect positive and negative emotions in humans based on facial expressions (Grounds, McComb, Proops, Smith, & Wathan, 2016). This characteristic forces the participant to be conscious of their mental state when they enter the arena, or workplace. Horses are also adept at *using emotion to facilitate thought.* Horses are prey animals, which means they are consistently hyper-vigilant in assessing their surroundings through sight, smell, hearing and kinesthetic sense (Pohl, 2015). Since these are very large animals, a successful session requires a human that is as present and aware as the horse. A recent pilot study suggests that EAL can increase the presence of individuals in fields such as nursing, thus increasing the quality of care for their patients (Walsh & Blakenley, 2013). Finally, in their own way, horses have demonstrated the ability to *understand emotions* by detecting intention and authenticity in people, gaining the ability to "mirror" behaviors they are picking up from others (Roberts, 1997). Authentic Leadership Development Theory highlights the importance of Authentic Followers. Defined as "followers who follow leaders for authentic reasons and have authentic relationships with the leader" (Avolio & Gardner, 2005, p. 332), the horse is the perfect representation of a human authentic follower due to this natural ability to "mirror" the authentic emotion inside people. These three abilities force the human to develop their own ability to *manage emotions*, pushing the horse at the right times and showing the correct energy for the activity. In the arena this results in a positive, productive experience between the two and in the real world it is a positive relationship between leadership and staff.

Current Research

While the field has not been around for more than 100 years, several other branches of equine-therapies and activities have been documented to improve aspects of human life. Equine Psychotherapy has been proven to help self-harming adolescents as well as children who have experienced a trauma on a both social and neurobiological level (Carlsson, Nilsson, Ranta, &Traeen, 2016; York, 2010) Horses have also been applied to Occupational, Physical, and Speech therapies in a field known as Hippotherapy. With this both children and adults with a range of exceptionalities can benefit from interaction with the horse (Weissman-Miller, Miller & Shotwell, 2017; Aldridge, Morgan & Lewis, 2016) While research in these fields are growing, EAL, has not yet achieved the same rank of exploration.

Equine-Assisted Learning has made the most research headway in the medical field. Studies have shown that teaching emotional competencies is pivotal in the education of medical students (Farver, Taylor, & Stoller, 2013). University of Arizona Medical Center Professor Dr. Allen Hamilton has used EAL with success to teach these competencies to first-year medical students (Carroll, 2013). Walsh and Blakeley (2011) released a study that found EAL helped develop communication skills, compassion, and presence in nurses. A recent study by The University of Kentucky showed that EAL increased emotional intelligence scores of expert nurses who participated in leadership workshops with the horses (Pohl, Cheung, Dyk, Lindgreen, & Noriega, 2013). Researchers Stock and Kolb (2016) concluded through interviews with participants that EAL was an effective means of leadership development due to its ability to “stick with them”. In a qualitative study conducted by Nancy Grootveld (2015), results showed the

EAL is beneficial in the development of several emotional intelligence competencies. It is important to note that the bulk of available research in this field has been published in the last 5 years.

Since research in the field of EAL specifically has only began recently, there is still a drastic gap in the amount of data available. Many of these studies were severely limited in reliability and validity by their limited quantity of research participants. The purpose of this research is to address this gap by exploring Equine-Assisted Learning's impact on Emotional Intelligence.

Methodology

This study utilizes a mixed-methods design structured to include as many participants as possible from an Equine-Assisted Leadership Workshop based in Lexington, Kentucky. The qualitative segment of this study, modeled after a study conducted by Pohl and colleagues (2015) at the University of Kentucky, aims to determine the effects of Equine-Assisted Learning on emotional intelligence competencies. The quantitative segment of this study entails a single Likert-Scale rating of the effectiveness of the horse as a means of improving leadership skills. Included in the survey were demographics; age, gender, and profession, with a hope to find a relationship between effectiveness and these co-factors.

Participants

A sample of participants (n=32) were recruited to complete a questionnaire following participation in three EGLE workshops coached by Lissa Pohl of Lexington, Kentucky. Participants were both male (11) and female (21) and ranged in age from 22 to 63-years-old (M=35.4). All participants had an occupational role of full-time employee or full-time student. Exclusion factors applied to anyone who had participated in the workshop but was under the age of 18.

Sampling Procedure

Participants were given the option to partake in this study following completion of one of three workshops and chose to do so at their own free will. Of the 47 people who were given the option to take part in this study, 32 chose to do so. These workshops took place April, May, and June 2017. Each workshop was held in different locations;

however, all took place in the state of Kentucky. This procedure was approved by Eastern Kentucky University's Internal Review Board.

Workshop set-up. Participants in this study took part in one of three Equine-Assisted Learning leadership workshops coached by Lissa Pohl. The purpose of each workshop was specific to the group's identity; however, overlapping general leadership skills and emotional intelligence competencies were included in each workshop. These included self-awareness, social-awareness, communication skills, cohesiveness as a team, presence, and congruency. These skills were developed through ground exercises involving the horse and other humans.

Examples of Exercises.

- Building Trust/ Safety Check: To instruct participants on how to stay safe when working around horses – how the predator/prey dynamic influences our ability to create relationship and connection. Participants were given a chance to approach a horse, make connections, build confidence and trust, and lead a horse on a lead rope. Learning objectives include: Focus on Vision, holding intention, staying connected, building trust.
- Leading Exercise: This activity involved having participants lead horses with lead ropes around buckets in the arena. Learning objectives include: creating safe environments, increasing confidence in new situations, focusing, creating a vision, and acting with intention.
- Leadership in A Box: This exercise required the participants as a team, to get the horse to move into and stand in a box in the middle of the arena for 10 seconds without being able to touch the horse, or talk to each other. Learning objectives

include: team dynamics, decision making, connecting with team, effective communication, and strategy.

- Celebrating Success: In this exercise the group was given the goal of moving in synch with the horses from one end of the arena to the other end with everyone's feet, including the horse's, crossing the starting line and the finish line at the same time. Learning objectives include: teamwork, intentional influence, trust, increased perceptual awareness.

Instruments

Data was collected from participants using a printed questionnaire modeled after the qualitative portion of Pohl's (2015) instrument. The questionnaire began by asking the participant's age, gender, and profession/field of study. Following these were four open-ended, qualitative questions regarding their experience with the workshop and its effects on leadership development. A Likert-Scale 1-5 (1- Extremely Ineffective, 5- Extremely Effective) Rating of the effectiveness of using the horse to develop leadership competencies concluded the questionnaire. This instrument was reviewed by an Assistant Professor from the Department of Occupational Science and Therapy prior to its use.

Data Collection and Analysis

This qualitative study observed naturalistically the effects of EAL leadership workshops (Independent Variable) on developing emotional intelligence competencies and leadership skills (Dependent Variable). Data was collected using a questionnaire following three separate EAL leadership workshops given by the same coach, Lissa Pohl. This questionnaire took between five and ten minutes to complete. Questionnaires were given to participants by the workshop coach following reading a letter of consent. The

four open-ended, qualitative questions were looked at using thematic analysis techniques. Responses to each question were transcribed and read to identify themes that correlated with emotional intelligence competencies. Considering these responses and the sources from which this study was modeled, seven themes were chosen. The seven central themes included (1) non-verbal communication/body language, (2) self-awareness, (3) social awareness, (4) influencing others, (5) building/managing relationships, (6) application to work, and (7) controlling emotion. Transcriptions were coded by hand using these respective themes. The number of references to each theme for each question was recorded as well as the number of themes each individual participant referenced to analyze EI competency development. The effectiveness rating was recorded and analyzed to explore any relationship between age, gender, or previous experience and effectiveness of using the horse to develop leadership skills. Statistical evaluations of these ratings were deemed inappropriate for the scope of this study's design.

Results

Emotional Intelligence Competency Development

Following their participation in the EAL leadership workshop, participants were recruited to participate in the study by completing a five to ten-minute questionnaire. A thematic analysis of these surveys was conducted to code for the following themes: (1) non-verbal communication/body language, (2) self-awareness, (3) social awareness, (4) influencing others, (5) building/managing relationships, (6) application to work, and (7) controlling emotion. These results suggest that working with the horse is effective in developing the EI competencies of social-awareness (103 references, 32 of 32 participants), self-awareness (71 references, 31 of 32 participants), building/managing

relationships (43 references, 25 of 32 participants), non-verbal communication/body language (38 references, 22 of 32 participants), controlling emotion (37 references, 22 of 32 participants), and with less effectiveness influencing others (25 references, 19 of 32 participants), and application to work (16 references, 12 of 32 participants).

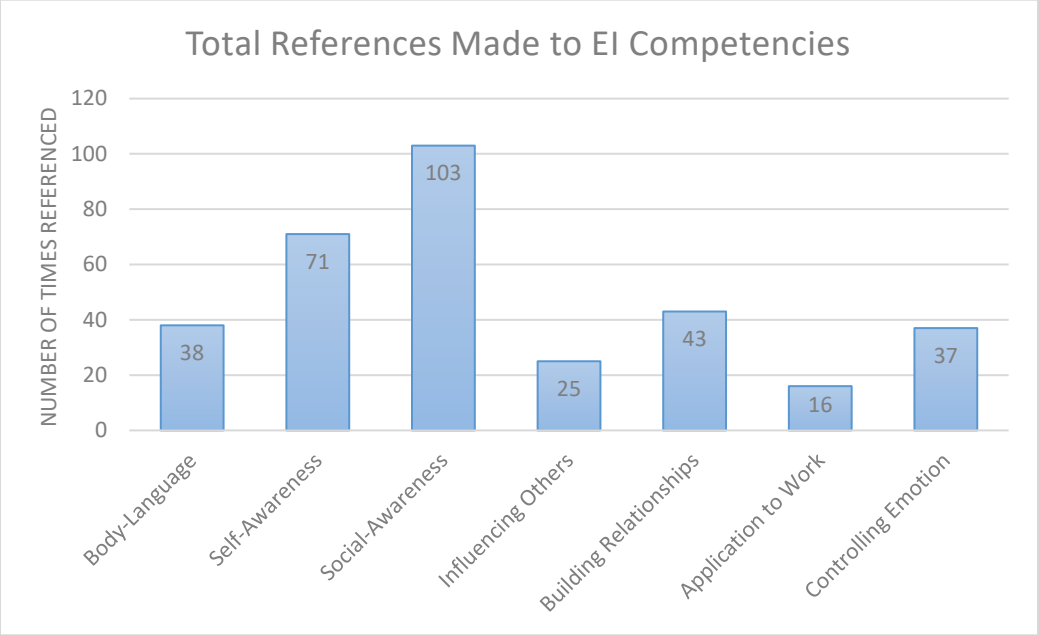

Figure 1: Total references made to emotional intelligence competencies in post-workshop questionnaire responses.

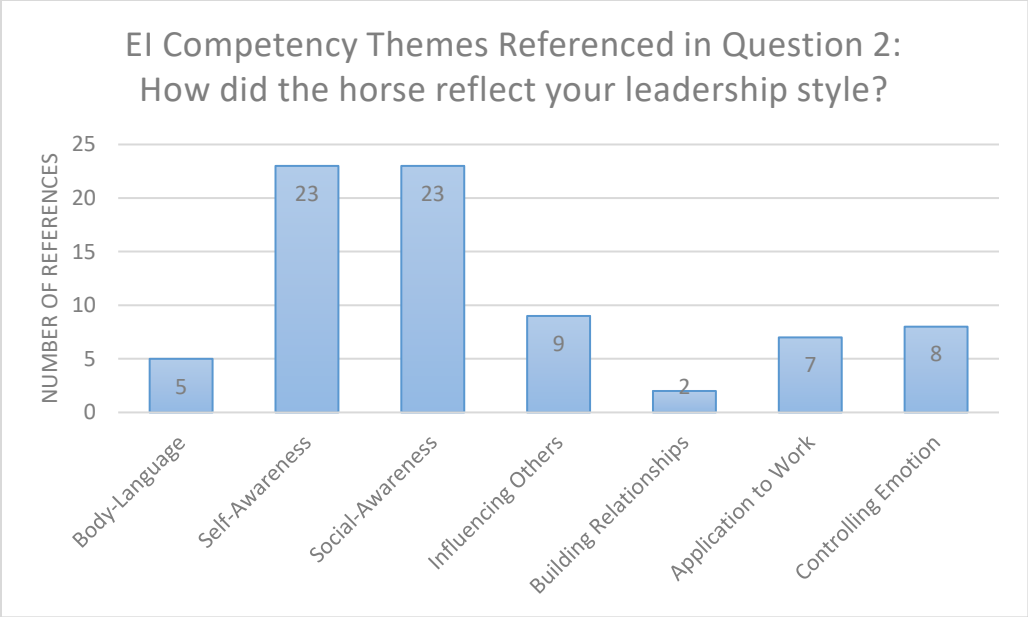

Figure 2: Post-workshop questionnaire question two EI references.

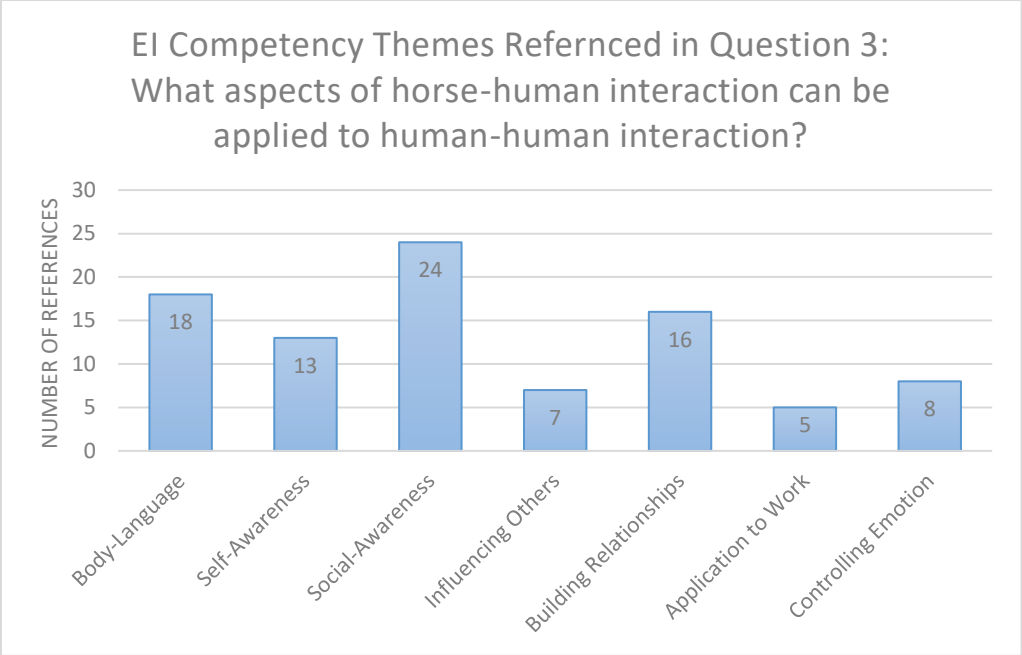

Figure 3: Post-workshop questionnaire question three EI references.

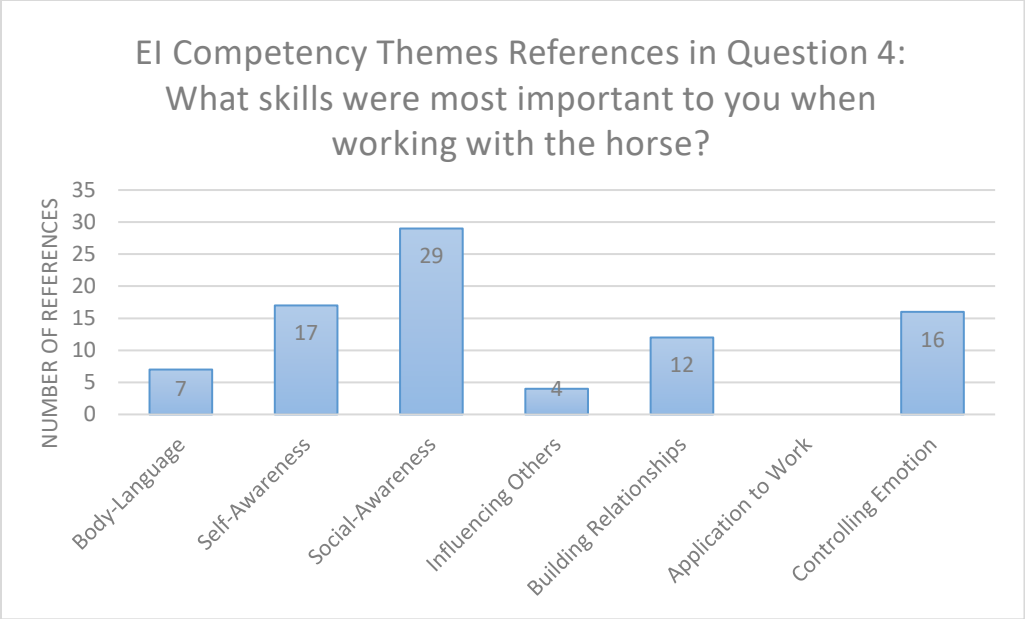

Figure 4: Post-workshop questionnaire question four EI references.

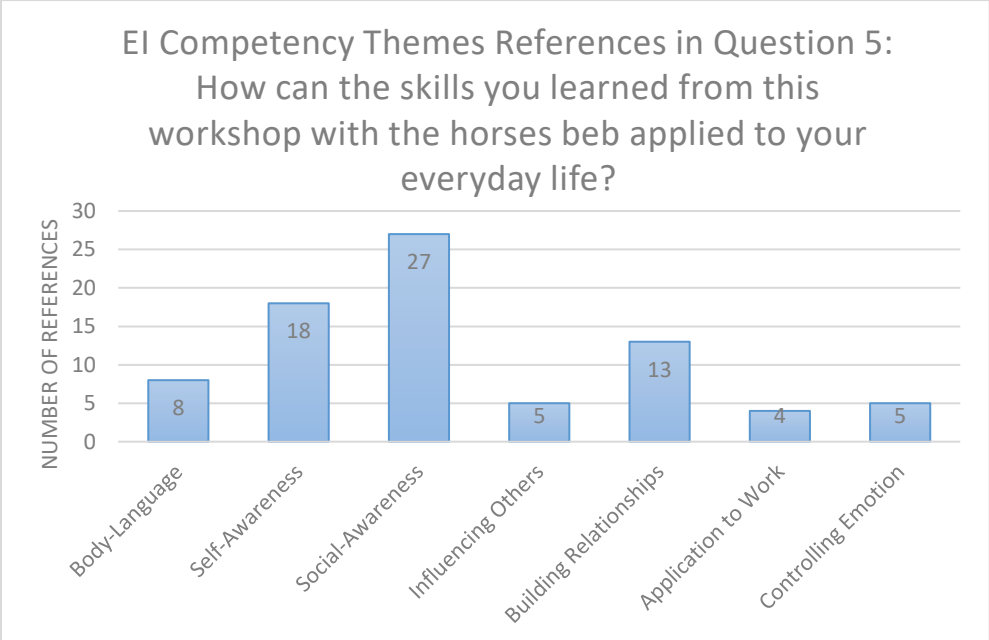

Figure 5: Post-workshop questionnaire question five EI references.

Defining Themes. During the process of reviewing the responses of the participants, seven themes were determined based on the responses of the participants,

emotional intelligence competencies, and previous studies similar to these. Many participants referenced multiple themes in a single response.

Body Language. Body language is a non-verbal form of communication that is important to both humans and horses. This theme is an important aspect of *perceiving emotion.* Having worked with the horses, the importance of congruence between their own body language and inner thoughts and feelings was noted by several participants.

Examples from Participants:

- "My body said one direction, but my mind said another, and the horse was following my body"
- "Intentful actions, both verbal and nonverbal are essential for effective communication"
- "I also became more aware of the non-verbal cues I send and receive and have a greater appreciation for how important these are"
- "Body language and other subconscious clues have a large influence on behavior."

Self-Awareness. Self-awareness was considered a realization of one's own emotions or actions and what they do or not do as leaders. This theme is an important aspect of *using emotion to facilitate thought.* The horse was able to mirror their own emotions and feelings, thus reflecting their own strengths and weaknesses for the participants to realize.

Examples from Participants:

- "I lacked clear direction and therefore the horse was unable to follow me…"

- "I discovered I used input to gather information from my experiences with the horse in the first exercise and used them in the second."
- "[I] need to be patient/ wait for response instead of rushing."
- "I am leaving with an increased sense of self-awareness. I gained insight into how I can overcome my own perceived limits and boundaries."

Social Awareness. Social-awareness was considered a realization of how a person's emotions and actions affected others, and the importance of that power. This theme is an important aspect of *understanding emotion* and *using emotion to facilitate thought.* Working with the horse gave a simplified view of working with humans, a version that could not hide emotions of thoughts. This aspect of horses gave a heightened view of how their actions can affect those they are trying to lead. This data suggests that equine-assisted learning is a good tool to develop this competency.

Examples from Participants:

- "I felt like I was working with her to accomplish the goal, not using her to accomplish the goal."
- "The need to have a clear goal/vision is essential to motivating horses and humans."
- "Be in the moment with humans and aware of how they are responding to you and your actions."
- "Awareness of other's opinions and desires; being intentful when listening and addressing other's needs."

- "Emotional intelligence- knowing how to talk to others/being aware of your own emotions/feelings before projecting them on others during difficult tasks"

Influencing Others. Influencing others involved demonstrating understanding of the effects their personal leadership tendencies have on others. This theme is an important aspect of *understanding emotions.* This theme is similar to social-awareness, but is set apart by conscious effort to control aspects of one's behavior in an effort to receive results.

Examples from Participants:

- "When I knew I was confident and going to be successful in leading the horse, the horse relaxed."
- "My attitude and preconceived notions have the potential to control my success or failure, depending on how I handle them."
- "How I act and feel on a day to day effects others."

Building Relationships. Building relationships were defined as an acknowledgement of the importance of personal connection to followers in leadership roles. This theme is an important aspect of *perceiving emotions and understanding emotions.* When interacting with the horses, one of the first steps is developing a trust or a bond. Participants reflected that this is how they should view their followers as leaders of humans as well. Trust, honesty, and respect were reoccurring keywords for this theme.

Examples from Participants:

- "I had to build an individual relationship with each horse first before I could leave them. I have similar interactions with people."

- "Gaining trust and respect; establishing confidence in self and other…"
- "…the importance to listen and sense where people are, and what might inspire them, to create positive relationships and achieve mutual goals."
- "Herding vs. Centering- building connections with people instead of just herding them where you want them to go."

Application to Work. This theme was noted for any explicit references of using what they have learned in their personal lives. This them is an important aspect of *using emotions to facilitate thought and managing emotions.* An important step in leadership development is being able to take what you have learned and apply it to your own life. Participants found connections between leading the horse and leading humans.

Examples from Participants:

- "I also learned that in leading the horse it is important to focus on the next goal. This would be applicable to leading individuals and teams, i.e. help them focus on the next goal and guide them in achieving the goal."
- "So much of what we do in medicine is focused on a physical interaction with a patient and we really saw how the power of touch can be used to connect and communicate."
- "Horses need to be reassured and made to feel safe. Volunteers can be much the same way."

Controlling Emotion. Controlling emotion involved a person's recognition on the impact of managing their emotions on productivity. This theme is an important aspect of *managing emotions.* Participants ranged in horse experience from years of experience to

none at all. With this, some may have found that they experienced frustration in not being able to perform exercises with ease or timidity around such a large, powerful animal respectively. Responses noted the positive results when they were able to convey calm, confidence, and patience.

Examples from Participants:

- "I found it very interesting that it was helpful to take a deep breath and calm myself in order to get the best response from the horse."
- "At first, I was tentative with something new, but after I gained confidence the horse followed confidently."
- "Confidence, self-awareness, [and] ability to keep calm [were most important when working with the horse]."

31 out of 32 participants references over 50% of these themes. Six participants made references to all seven themes in their responses.

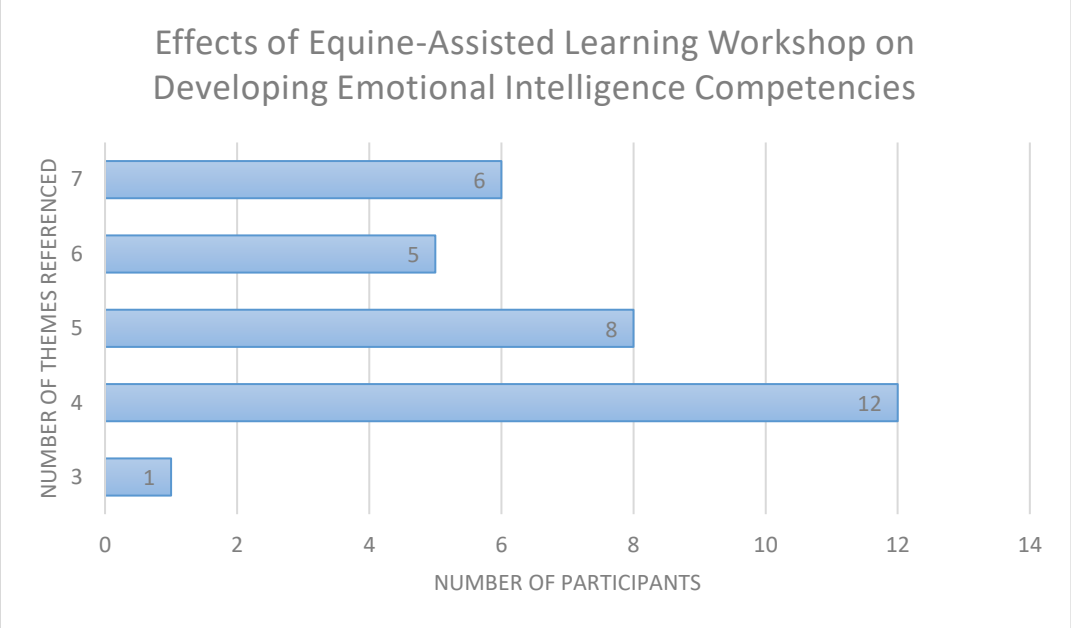

Figure 6: Illustrates the number of participants who referenced three or more emotional intelligence competencies in their responses to the post-workshop questionnaire.

Effectiveness of Equine in Facilitating Leadership Development

Quantitative data was collected via a Likert-scale 1-5 rating of the effectiveness of using the horse to develop leadership skills. Descriptive statistics were used to analyze the relationships between perceived effectiveness and age, gender, and previous horse experience. Based on the results of the study, a statistical analysis was deemed unnecessary for the scope of this study due to lack of differentiation in responses.

The average rating across all demographics was M= 4.34. 30 of 32 participants identified the horse as being extremely effective or very effective in developing leadership skills. Two participants identified the horse as being somewhat effective in developing leadership skills. There is no significant difference in the relationships between effectiveness and the demographics observed.

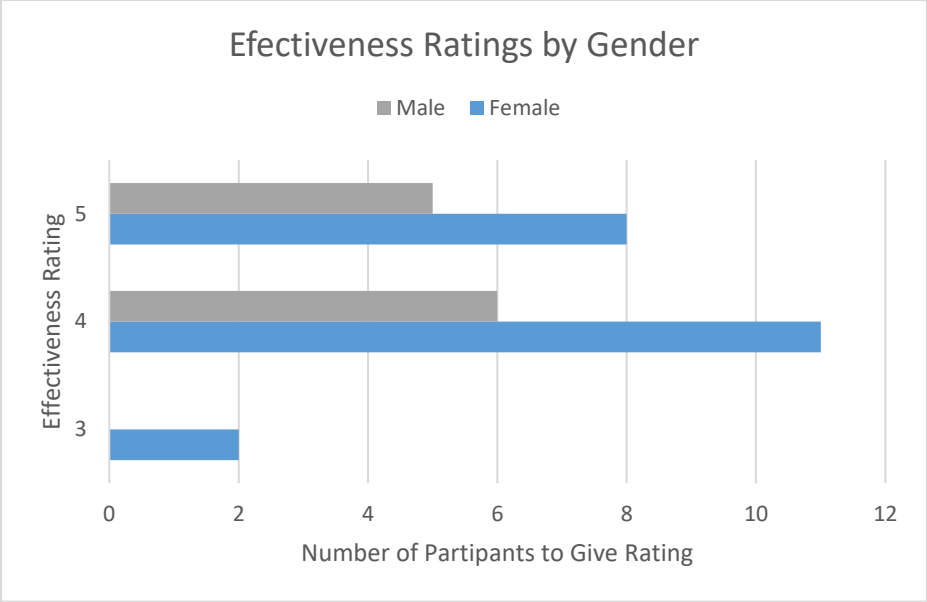

Figure 7: Effectiveness rating of horse as a means of developing leadership by gender.

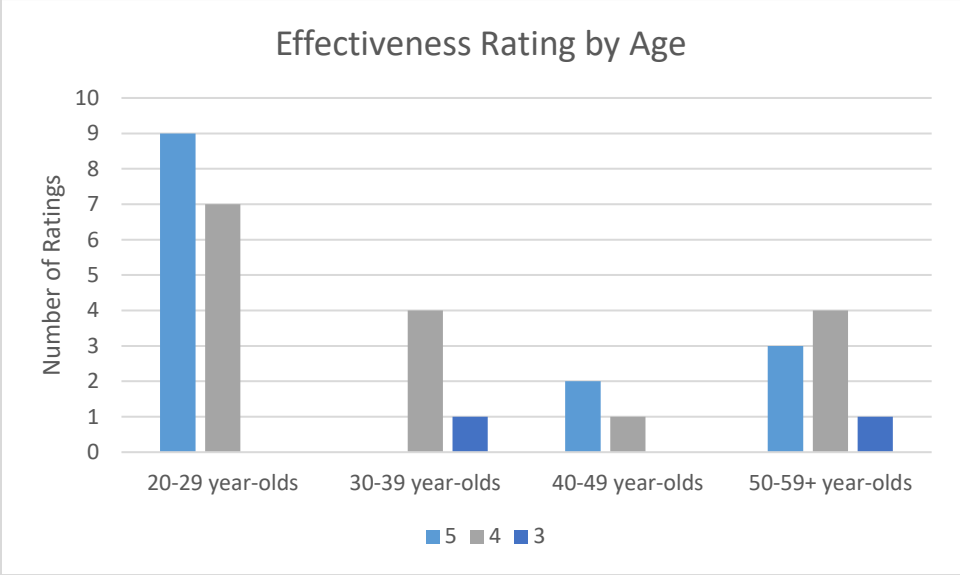

Figure 8: Effectiveness rating of horse as a means of developing leadership by age.

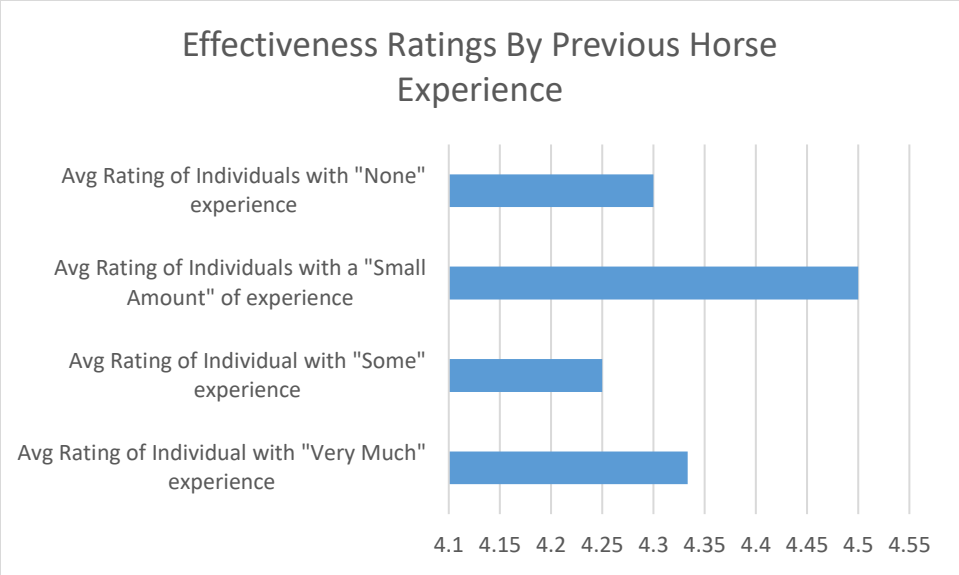

Figure 9: Effectiveness rating of horse as a means of developing leadership by gender.

Discussion

The qualitative portion of this study shows that Equine-Assisted Learning can be very effective in increasing the emotional intelligence competencies social-awareness and self-awareness. There were also significant references to body language, controlling emotion, and building relationships. The chief competencies, social-awareness and self-awareness can be interpreted as an increased presence in individuals. These results compare to Pohl's (2013) results that EAL can increase presence in expert nurses. With similar results in both a specific and non-specific population, it can be generalized that EAL may be able to promote development of competencies such as self- and social-awareness.

The quantitative portion of this study showed that participants of this study scored the horse as an effective means of developing leadership competencies, with an average

rating of 4.34. The data was also analyzed under three demographic categories: age, gender, and previous horse experience.

As the old saying goes, “you can’t teach an old dog new tricks” one would expect a drastic difference in the results. As it turns out, this demographic categorization yielded the highest difference in effectiveness rating. Since there was not an even number of participants in each category, it was deemed most beneficial to split the group in half. 16 participants fell between 20-29-years-old. Their average rating was a 4.56. 16 participants were 30 years of age or older. Their average rating was a 4.18. The younger population may be more accepting of these non-traditional teaching methods than the older population. Another factor that may have influenced this difference is that most of the people in this study who were ages 20-29 are currently students, so they are in the mode to learn and apply. While this section did have the highest difference in average ratings, it is after all only by 0.38.

The next category explored in relation to effectiveness ratings was gender. Much like the culinary world, the horse industry consists of mostly women towards the bottom of the industry pyramid, but the experts (renowned trainers, owners, breeders) consist of men. In my own life, I have met countless women who love horses and spend all of their extra time and finances on horses. Therefore, my predisposition was to see a higher rating in women who are more naturally drawn to horses. The average rating for male participants (M=4.45) and female participants (M=4.5) is virtually nonexistent. This data says that perhaps the novelty of the experience on individuals without horse experience can be beneficial, touching, and memorable.

Limitations

The largest limitation to this study is its lack of comparison group. Without another leadership development tool, such as a traditional classroom setting or a ropes course, data can only be analyzed descriptively. Another limitation of this study is the availability of emotional intelligence testing due to time and resources. If this testing were to be available, results could be more standardized, thus becoming more valid and reliable.

Future studies

Since there is so little research on this subject, there are many directions future research can go. An experimental design missing in the literature that would add to the validity of these studies would be an Pre-Post Experimental Control Group that compared EAL, another LDP such as a ropes course, and no interventions effect on leadership skills. There is also a large gap in the literature on purely quantitative studies. Future studies with increased funding can also include a larger sample size that utilizes EI tests to track statistical changes in EI competencies. With these numbers, a strong argument can be made for or against this leadership development method.

Conclusion

The results of this study show that Equine-Assisted Learning may be an effective means to develop emotional competencies and leadership skills, specifically self-awareness and social-awareness. The data also shows no discrimination in self-reported effectiveness ratings of using the horse as a means of leadership development across different age cohorts, genders, or previous horse experience levels.

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