



**Bournemouth  
University**

# A Feasibility Study of an Equine Assisted Intervention for Children and Young People with Mental Health and Behavioural Challenges

Professor Ann Hemingway

[ahemingway@bournemouth.ac.uk](mailto:ahemingway@bournemouth.ac.uk)

This paper presents the findings from a feasibility study of an equine assisted intervention (EAI) which brings together young people (8-18 years) and horses to learn social and emotional skills in the context of natural horsemanship.



Click here to play a 4 minute video of the intervention under study: TheHorseCourse (UK)

<https://vimeo.com/222624036>

Click here to visit [TheHorseCourse.org](http://TheHorseCourse.org)

# Feasibility Study Framework (Bowen et al., 2009)

1. acceptability
2. demand
3. implementation
4. practicality
5. adaptation
6. integration
7. expansion
8. efficacy testing

## Ethical Issues...

- University ethics panel
- Anonymised data
- Risk assessments
- Supervision
- Equine stress monitoring (Young et al., 2012).



Bournemouth  
University

## Methodology

The methods used to answer the questions posed by the elements of the feasibility study included:

- Analysis of referral data
- Qualitative interview with the charity CEO
- Analysis of referrer assessments before and two months post intervention (n=155)



Bournemouth  
University

## 1. Acceptability

- Referrers – 700 plus referrals to date from multiple agencies (social work, mental health and education).
- Participants - 97% completed the course during the recruitment period for this study (two years).
- Referrals are currently increasing with referrers reporting that 10-15% of their case loads do not respond to talk based interventions .



Bournemouth  
University

## 2. Referral Criteria

- The individual is not improving with talk based interventions
- Has severe social exclusion
- Is referred by a professional (for example social worker, teacher, psychologist, nurse, GP, psychiatrist).



### 3. Demand

Demand is outstripping supply with overall more than 650 people having completed the course and over 150 per year now being referred from one area.

Four further centres are now providing this course in the UK and one in the USA.



Bournemouth  
University

## 4. Implementation

This intervention has evidenced that it can implement successfully.

- The clearly defined programme TheHorseCourse ReStart forms the majority of the activity undertaken by this charity.
- This program has eight years of delivery with multiple horses multiple locations and multiple facilitators.
- There is a clearly defined training program for facilitators.



Bournemouth  
University

## 5. Practicality

Requirements already in place in multiple centres:

- An indoor arena
- Large pool of trained horses
- Pool of trained facilitators
- A significant volume of referrals



Bournemouth  
University

## 6. Adaptation

- Moving from offenders only to broader referral criteria
- Family Working
- Disability adaptation
- Early intervention adaptation (group work, lighter touch)



Bournemouth  
University

## 7. Integration

This intervention has demonstrated clear integration with local statutory and other support services.

- Well defined planned sequencing of treatment within overall care package.
- Good communications with front line professionals and local strategic leads.
- Detailed referral and handover protocol.



**Bournemouth  
University**

## 8. Expansion

Evidence of replication:

- London
- Surrey Kent border
- Dorset
- Gloucestershire
- Wiltshire
- Oregon

Additional facilitators have been trained by the charity to aid replication, recruited primarily from those who already hold instructor status with Parelli Natural Horsemanship.



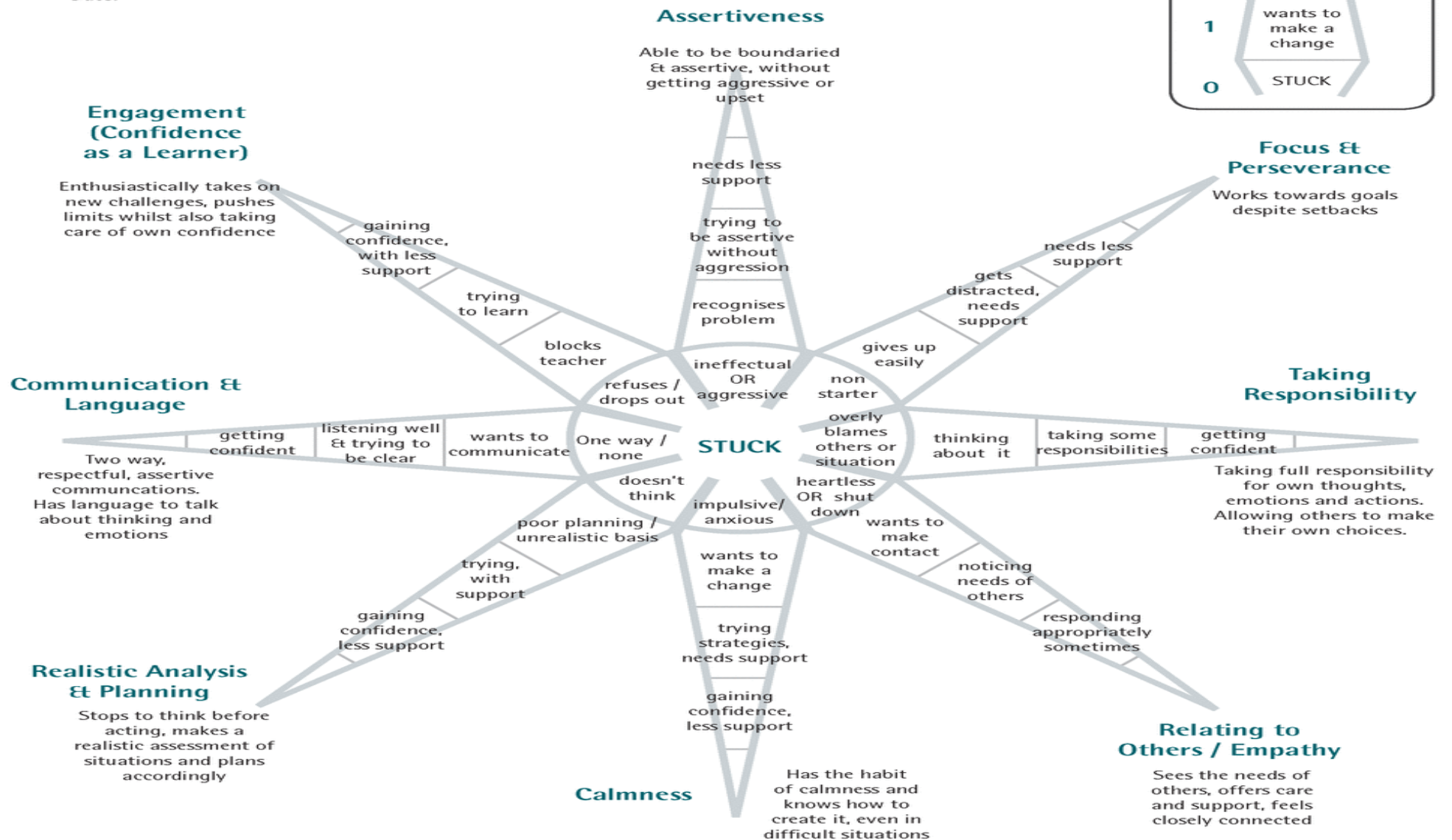
**Bournemouth  
University**

<b>Anxiety/ Depression</b>	<b>ADHD</b>	<b>Bullying/ Angry/ Aggressive/ Violent</b>	<b>Lacks Confidence /Bullied/ Lonely</b>	<b>Witness to Domestic Violence/ Abuse</b>	<b>Not Attending School/ Excluded From School</b>	<b>Self- Harm/ Suicidal</b>	<b>Relationship Issues/ Attachment Disorder</b>
18	15	53	27	11	10	13	8

*Main Reason for Referral N=155*

# Referral / Outcomes / Feedback Star

Name:  
 Referred by:  
 Star filled in by:  
 Date:







**Bournemouth  
University**

**Measure of internal consistency for the `star chart`**

**measurement scale used**

(Cronbach's alpha will tell you if the test you have designed is accurately measuring the variable/s of interest)

**Cronbach's Alpha**

**.889**

**N. of Items on Star**

**8**

<b>Star Chart Skills Pre and Post (p value 0.001)</b>	<b>Number of Participants with a Positive Score Change</b>	<b>Number of Participants with a Negative Score Change</b>	<b>Number of Participants with No Score Change</b>	<b>Total number of scores in analysis for each Skill</b>
<b>Realistic Planning</b>	105	15	33	153
<b>Assertiveness</b>	107	12	35	154
<b>Communication</b>	102	25	27	154
<b>Calmness</b>	111	15	28	154
<b>Engagement (as a learner)</b>	103	13	38	154
<b>Focus and Perseverance</b>	100	9	45	154
<b>Empathy</b>	99	19	36	154



**Bournemouth  
University**

*(p value 0.001)*

Intermediate Outcomes Assessed by Referrer two months post	Engagement with Education	Problem Behaviours	Relationships	Sense of identity
Worse	8	7	5	5
No Change	25	36	31	38
Positive Change	122	112	119	112
Number in analysis	155	155	155	155

## *Limitations*

- *No randomisation*
- *No control group*
- *Convenience sample*
- *Measurement tool in test phase*



Bournemouth  
University

## In conclusion...

- This intervention has a clearly defined methodology and facilitator training program and therefore lends itself to robust evaluation.
- More robust studies are needed on effectiveness using a randomised controlled trial or other experimental design using a validated tool and access to statutory data sets.



Bournemouth  
University

## References

- Bowen D.J., Kreuter M., Spring B., Cofta-Woerpel L., Linnan L., Weiner D., Bakken S., Patrick Kaplan C., Squiers L., Fabrizio C. & Fernandez M. (2009) How we design feasibility studies. *American Journal of Preventitive Medicine*. May; 36(5): 452-457.
- Young T., Creighton E., Smith T. & Hosie C. (2012) A novel scale of behavioural indicators of stress for use with domestic horses. *Applied Animal Behaviour Science*, 140, 33-43.



**Bournemouth  
University**

# Prof Ann Hemingway

[ahemingway@bournemouth.ac.uk](mailto:ahemingway@bournemouth.ac.uk)

01202 962796