

4-H Youth Programming Promotes the 5 C's of the Positive Youth Development Theory

Julianna Applegate
University of Massachusetts Amherst

INTRODUCTION

- Positive Youth Development (PYD) is a theory of childhood development that claims youth who engage in activities that promote the 5 C's, Competence, Confidence, Connection, Character, and Caring, are less likely to engage in negative or high risk behaviors.
- Youth who participate in activities that promote the 5 C's of PYD may also be more likely to engage in activities promoting the 6th C, contribution.
- 4-H is a youth organization for ages 5-18 with the goal of promoting science, healthy living, community involvement, skill building, leadership, and engagement through a variety of clubs and activities.
- Previous research determined that nationally, 4-H did have a significant positive impact on PYD in 4-H youth.
- This research project was conducted to determine if the Massachusetts 4-H program was promoting PYD, and if so, which of the 5 C's it was promoting the most or least actively.
- If 4-H was promoting PYD successfully, then on a larger scale, parents could confidently use 4-H involvement as an effective youth development tool.

METHODS

Participants

- 23 Participants
- Age Range: 10-18
- Years in 4-H: 1-11 Years
- Participants filled out an online or paper survey.
- Participants were recruited at 4-H events or through a 4-H email list.

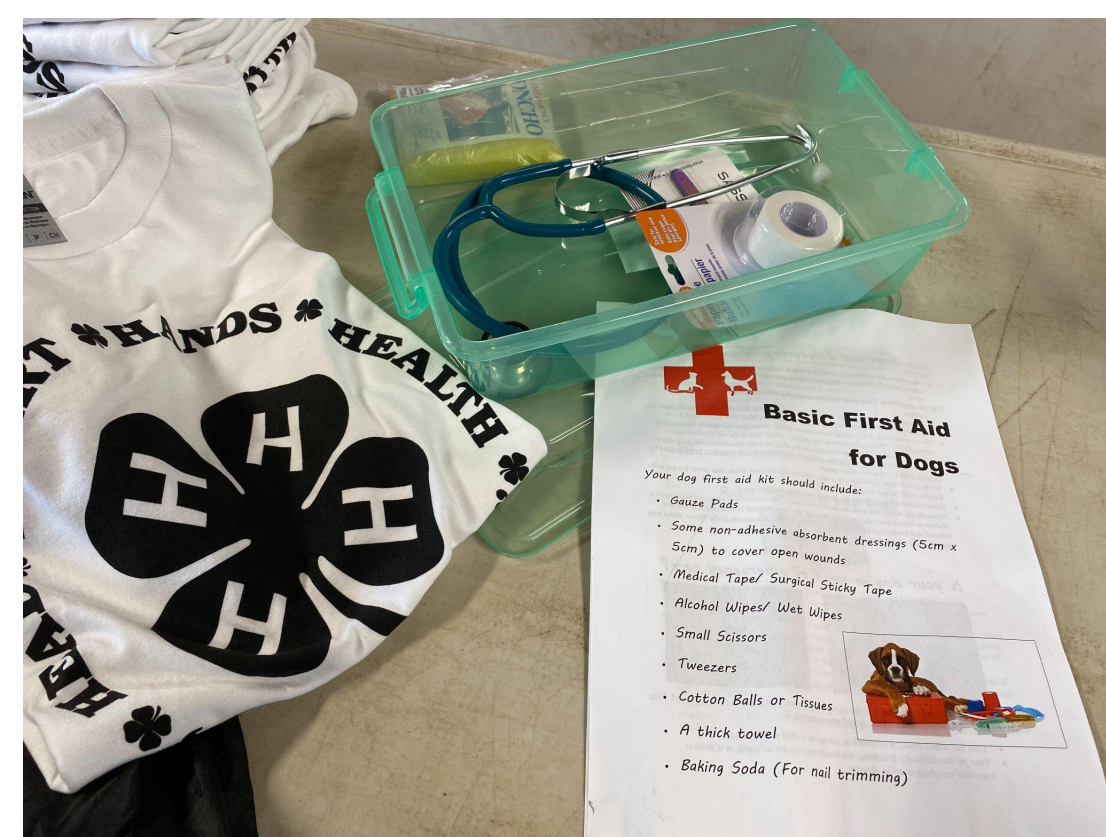


Figure 9: Explore UMass Dog First Aid Kit Activity

Measures

4-H Youth Development Survey

- 30 Questions
- Each question had the same six answer options
- Created for this research project with the goal of measuring how 4-H youth felt 4-H has impacted them in each category of PYD

Measures Used to Develop the 4-H Youth Development Survey

- Self-Perception Profile for Children (SPPC)
- Rosenberg Self-Esteem Scale
- Adolescent Self-Esteem Questionnaire (ASQ)
- Inventory of Parent and Peer Attachment (IPPA)
- Interpersonal Reactivity Index (IRI)
- Social Responsibility scale



Figure 10: Rockets to the Rescue-4-H STEM Ambassador

RESULTS

Competence Section vs. Years in 4-H

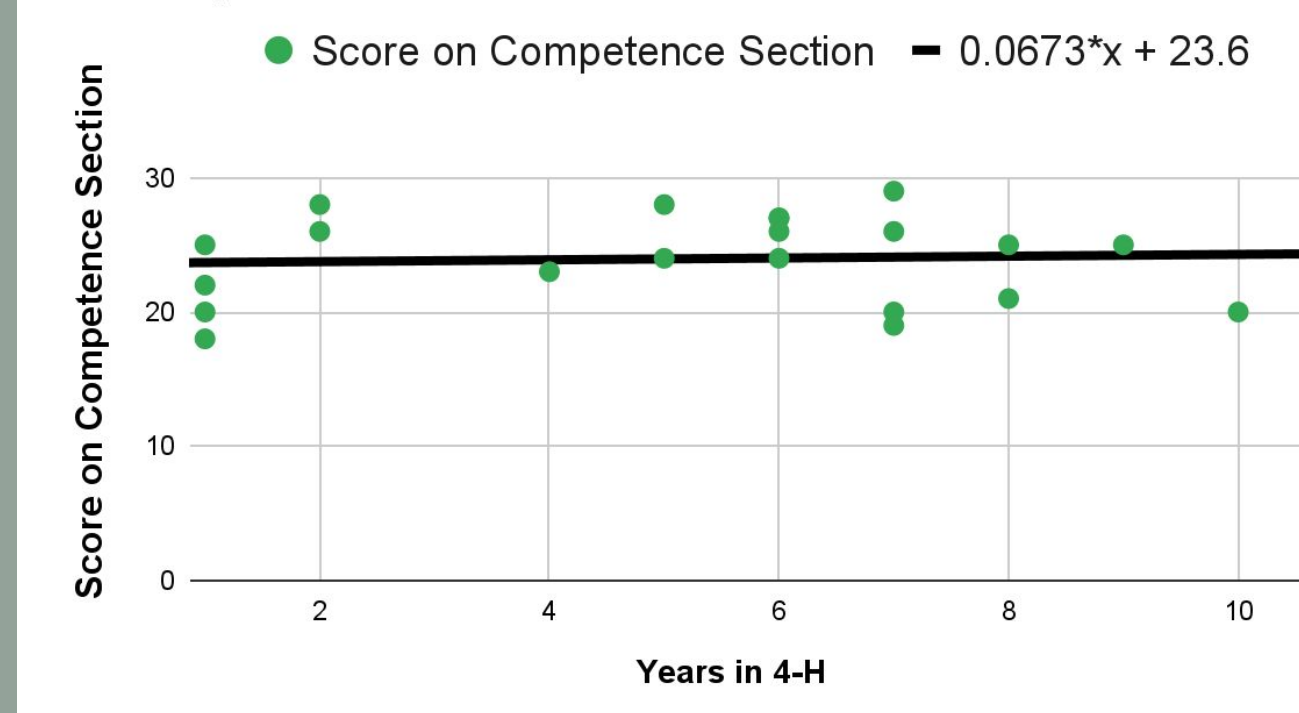


Figure 1: Score on Competence section of quiz increased as Years in 4-H Increased (P < 0.001)

Connection Section vs. Years in 4-H

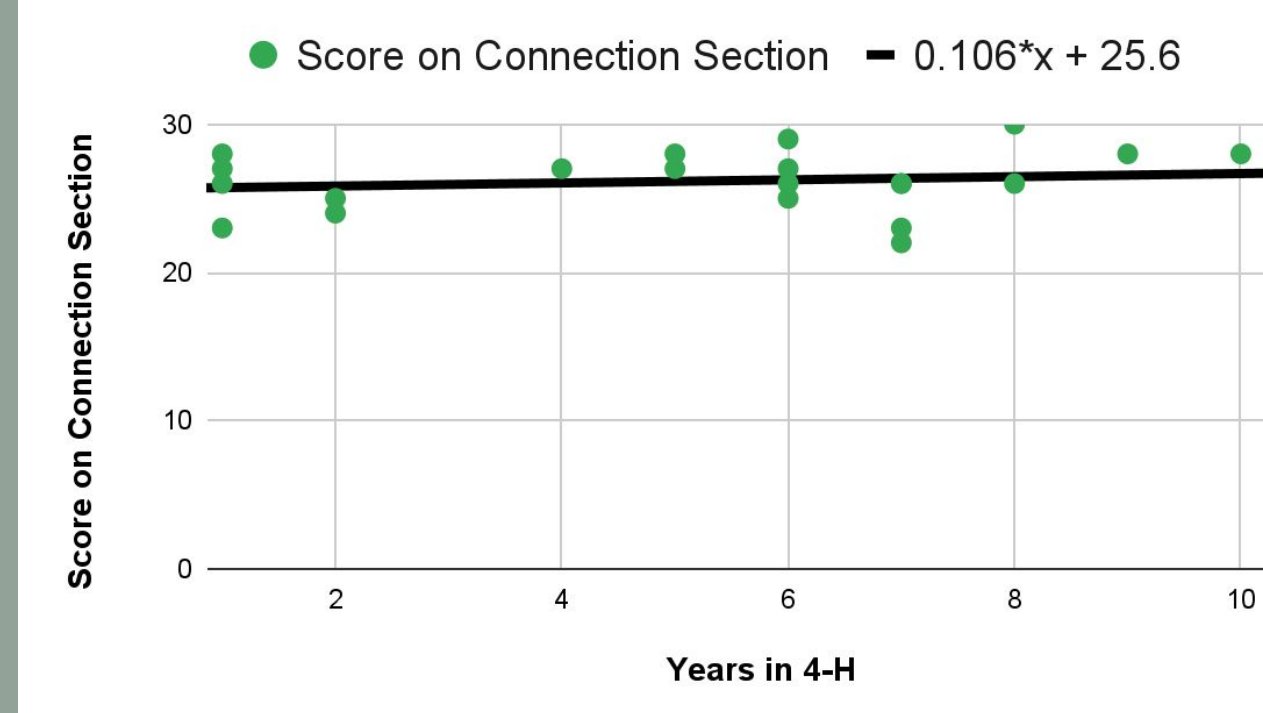


Figure 2: Score on Connection section of quiz increased as years in 4-H increased (P < 0.001)

Confidence Section vs. Years in 4-H

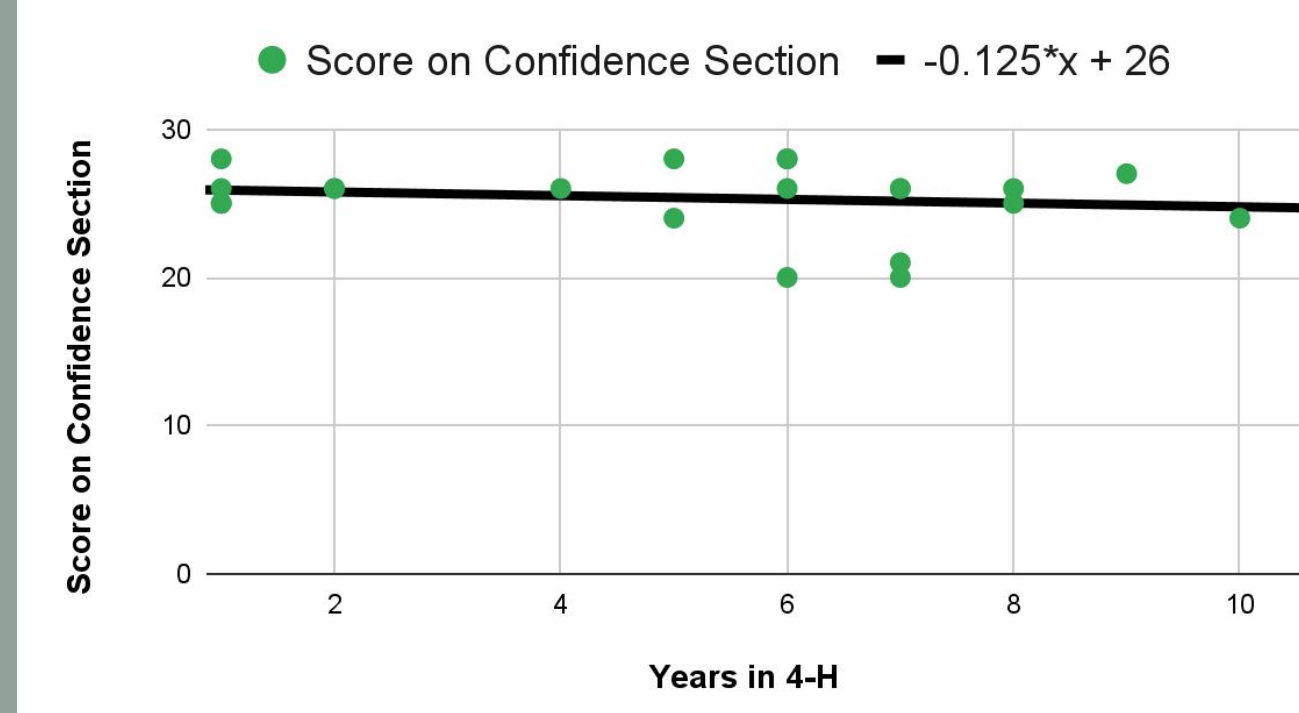


Figure 3: Score on Confidence section of quiz decreased as years in 4-H increased (P < 0.001)

Character Section vs. Years in 4-H

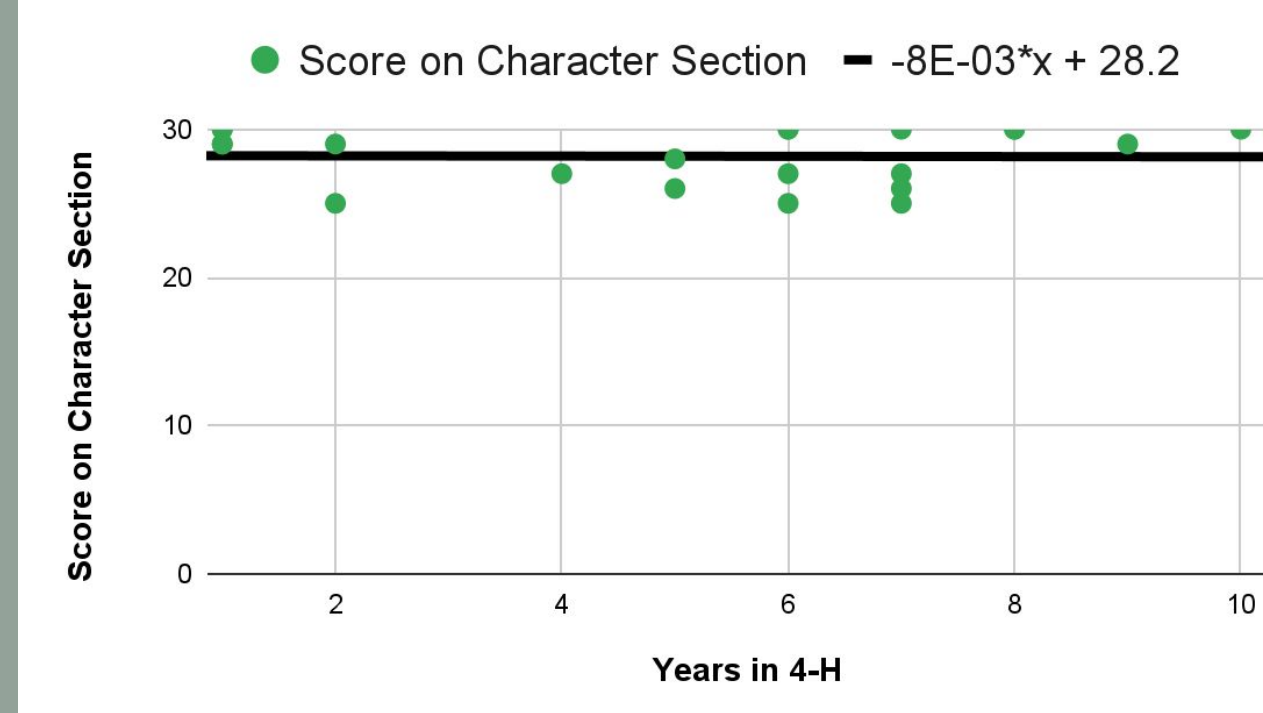


Figure 4: Score on Character section of quiz remained at about 0 as years in 4-H increased (P < 0.001)

Caring Section vs. Years in 4-H

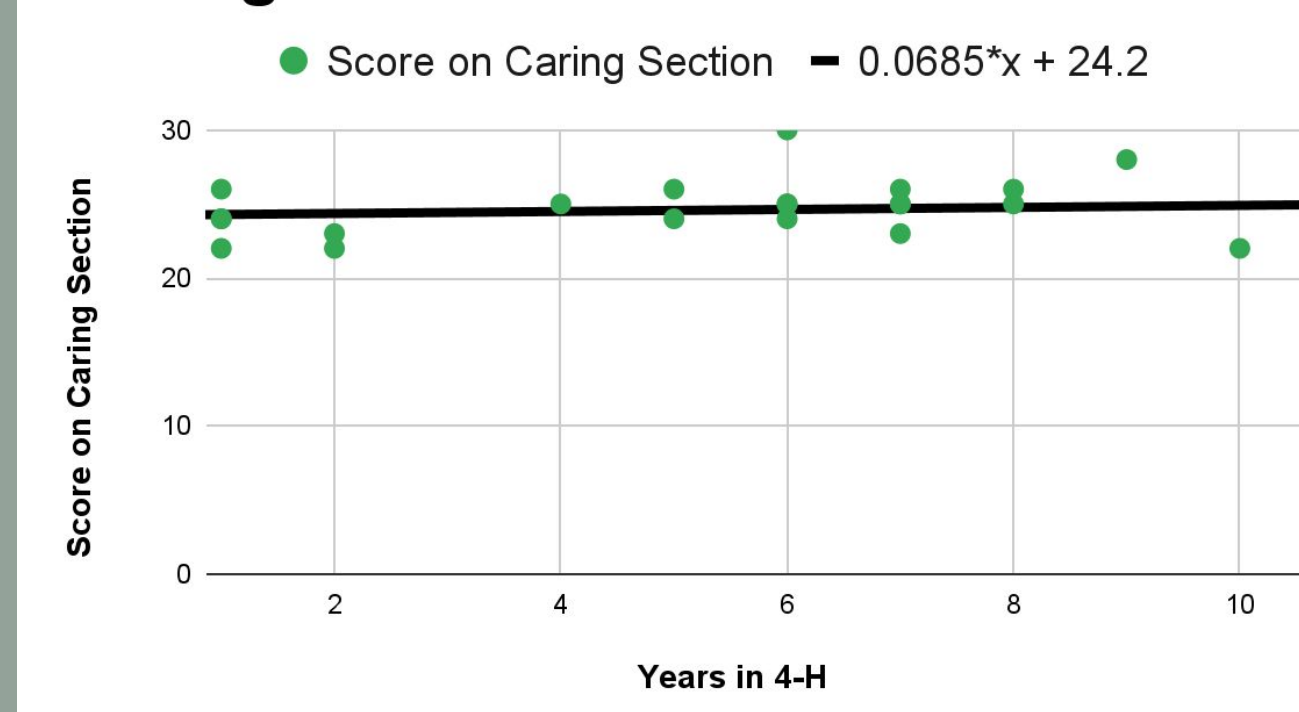


Figure 5: Score on Caring section of quiz increased as years in 4-H increased (P < 0.001)

Contribution Section vs. Years in 4-H

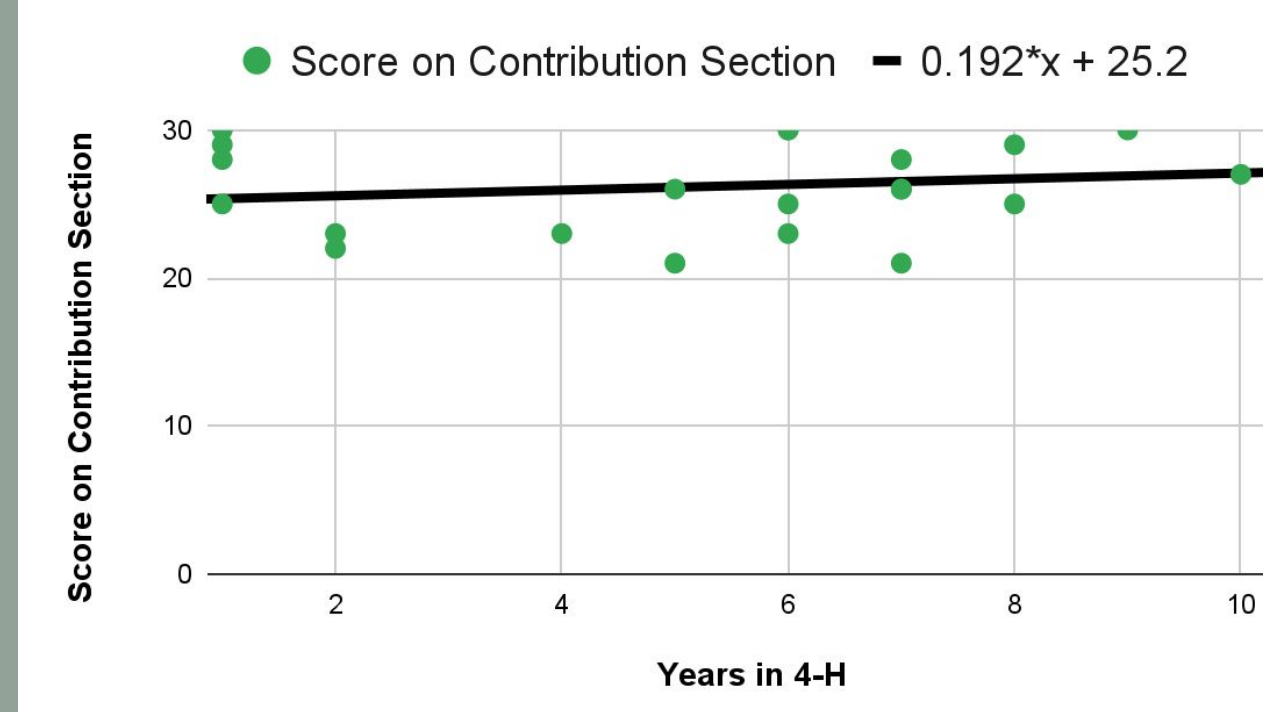


Figure 6: Score on Contribution section of quiz increased as years in 4-H increased (P < 0.001)



Figure 11: 4-H Youth Learning about 3D printers at the Joint Base Cape Cod



Figure 12: 4-H Youth partaking in STEM programming



Figure 13: Spin Art - Upcycled computer parts used as 4-H outreach at events with the public

Total Score on Survey vs. Years in 4-H

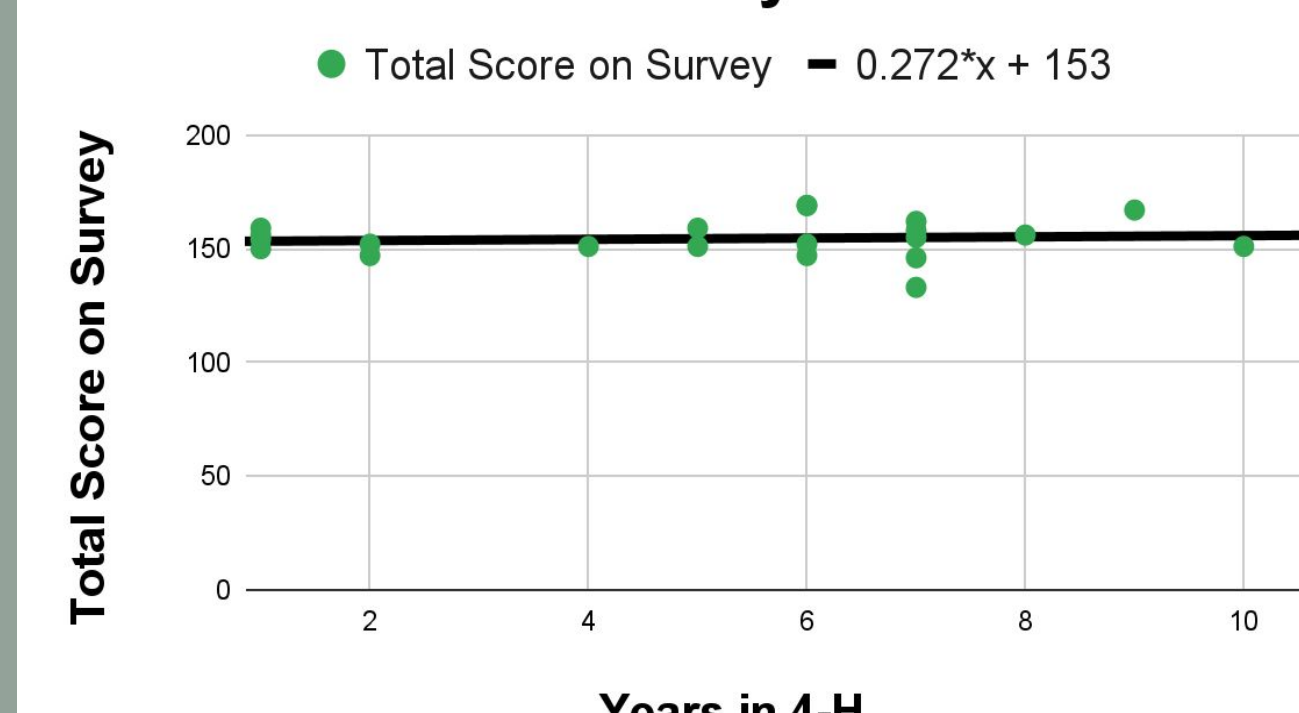


Figure 7: Total score youth obtained on survey increased as years in 4-H increased (P < 0.001)

Total Score on Survey vs. Age

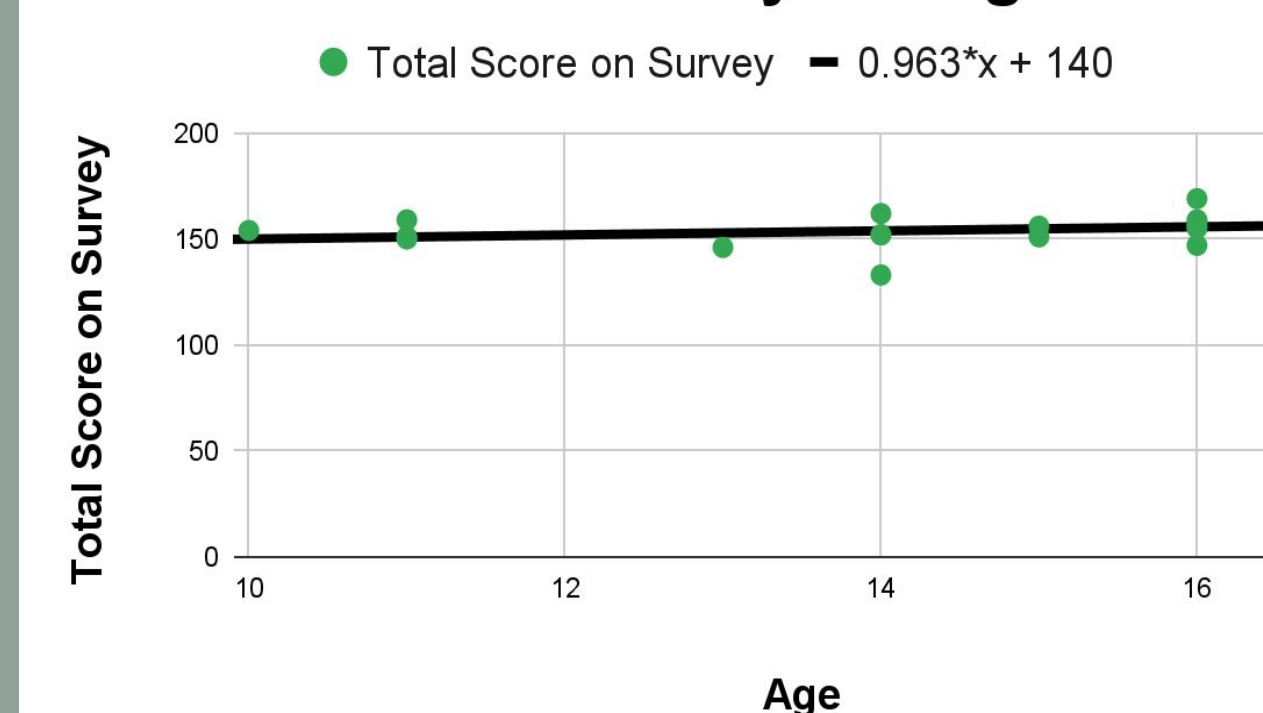


Figure 8: Total Score youth obtained on survey increased as the age of the 4-H youth increased (P < 0.001)

Conclusions and Implications

- 4-H likely does contribute to the development of the 5 C's of PYD Theory.
- 4-H most effectively developed the areas of Competence, Connection, Caring, and Contribution (Figure 1,2,5,6).
- Scores increased overall as years in 4-H increased (Figure 7) and as age of the 4-H Youth Increased (Figure 8).
- As years in 4-H increased for each 4-H youth, the score on the Contribution section of the quiz increased as well. This indicates that 4-H does develop the 5 C's of PYD theory over time, effectively leading to the emergence of the 6th C, Contribution.
- The areas 4-H has had the least impact on are the Confidence and Character areas of development.



Figure 14: 4-H members engaging in 4-H Robotics Programming



Figure 15: Hanscom Science Share- 4-H National Youth Science Day Kits used for an alternative science fair



Figure 16: 4-H Veterinary Science Academy Students Performing ultrasounds on sheep

- Knowing that 4-H Youth scored lower on the confidence and character sections of the quiz, 4-H programming in the future could work to incorporate confidence and character-building activities into curriculum.
- Parents can also confidently use Massachusetts 4-H youth programming as a tool to help develop children into contributing adults that are less likely to engage in high risk behaviors.
- Future research could be conducted by examining a larger sample size.

ACKNOWLEDGEMENTS AND REFERENCES

I would like to thank the Massachusetts State Grange and the CAFE Summers Scholars program for funding this research project. I would also like to thank the Massachusetts 4-H Extension office, the 4-H youth who participated in this research project, and Carrie Chickering-Sears, who helped guide me through the development of this research.

- Armsden, Gay, and Mark T. Greenberg. "The Inventory of Parent and Peer Attachment: Individual Differences and ..." *Research Gate*, Journal of Youth and Adolescence, Oct. 1987
- Davis, Mark H. *Empathy Interpersonal Reactivity Index - The Fetzer Institute*. 1980
- Hafekost K., Boterhoven de Haan K., Lawrence, D., Sawyer M.G., and Zubrick S.R., (2017) Validation of the Adolescent Self-Esteem Questionnaire: Technical Report: Telethon Kids Institute and the Graduate School of Education, The University of Western Australia, Perth, Australia.
- Harter, Susan. *SELF-PERCEPTION PROFILE FOR CHILDREN: MANUAL AND QUESTIONNAIRES*. University of Denver, 2012
- Lerner, Richard M., and Jacqueline V. Lerner. *Tufts 4-H Study of Positive Youth Development - UF/IFAS Extension*. Tufts University, Dec. 2013,
- Lerner, Richard M., et al. *Positive Youth Development, Participation in Community Youth Development Programs, and Community Contributions of Fifth-Grade Adolescents: Findings From the First Wave Of the 4-H Study of Positive Youth Development*. Feb. 2005
- Rosenberg, M. *Rosenberg Self-Esteem Scale - The Fetzer Institute*. 1965
- *Technical Report: Lifesports Survey Tools - Cayci.osu.edu*.