



Program Evaluation Report

**nXu's Purpose, Social-Emotional Learning (SEL)
and College & Career Readiness Curriculum**

Summer 2024

nXu's Purpose, Social-Emotional Learning (SEL) and College & Career Readiness Curriculum

Students who received nXu's curriculum experienced 3x growth in sense of purpose and 2x growth in SEL skills.

Purpose and Background

nXu, short for nexus, is a national non-profit organization whose mission is to catalyze and equip youth and adults to explore, articulate, and pursue their purpose. Through a codified and research-based middle & high school curriculum and comprehensive partnership model, nXu has designed a solution that integrates purpose, identity, social-emotional wellness, social capital, & career exploration to engage students in defining personal & professional pathways that align with their evolving sense of self.

The aim of nXu's comprehensive program model is to help individuals develop their sense of purpose, cultivate their social and emotional learning (SEL) competencies, and strengthen their personal and professional identities. Purpose plays a crucial role in the drive and direction an individual feels for their lives. The work at nXu has been informed by existing youth purpose development research by various researchers including Professor Dr. William Damon,¹ director of the Stanford Center on Adolescence, and Dr. Heather Malin,² director of research at the Stanford Center on Adolescence, who has been an nXu collaborator.

nXu's curriculum is anchored around purpose due to the relationship between purpose and a greater academic engagement³, a greater resilience⁴, a greater well-being^{5,6}, and positive career identities⁷. The nXu curriculum provides rigorous, scaffolded, research-based, purpose development experiences for young people in the classroom.

The curriculum is intentionally scoped and sequenced by grade level to be developmentally appropriate. It is designed to create intentional space to elevate joy, center participant voices and allow participants to show up, express, own, and celebrate their full authentic selves.

This study builds upon theoretical existing research on the definition and value of purpose and SEL competencies, to evaluate a concrete, in-classroom curriculum designed to increase a student's sense of purpose and social emotional learning. Adolescent purpose is intricately connected to positive social behavior and serves as a valuable social-emotional learning skill. The development of purpose in adolescence is associated with psychological benefits and has implications for academic achievement and civic engagement⁸ and correlates strongly with psychological wellbeing.⁹

Methods

This evaluation aimed to determine if students' responses on pre- and post-curriculum self-report surveys related to purpose and SEL competencies showed significant improvement compared to a matched group that did not receive the nXu curriculum. The study compared the overall average responses of the student groups on the pre- and post-surveys, as well as within each developmental area of the curriculum: **Belonging and Connection, Emotional Wellness, Positive Identity Development, Positive Social Behavior, and Purpose-Driven.**

¹ Damon, William. *The Path to Purpose*. 2008

² Malin, Heather. *Teaching For Purpose*. 2018

³ Yeager, David, et al. "Boring but Important: A Self-Transcendent Purpose for Learning Fosters Academic Self-Regulation". 2015

⁴ Malin, Heather, "Teaching Purpose for Resilience and Healing", Harvard Graduate School of Education. January 31, 2019. <https://www.hepg.org/blog/teaching-purpose-for-resilience-and-flourishing>.

⁵ Kiang, Lisa and Fuligni, Andrew. "Meaning in Life as a Mediator of Ethnic Identity and Adjustment Among Adolescents from Latin, Asian, and European American Backgrounds". 2010

⁶ Burrow, O'Dell, & Hill. "Profiles of a Developmental Asset: Youth Purpose as a Context for Hope & Well-Being". 2009

⁷ Anthis, Kristine. "Hope, Will, Purpose, Competence, & Fidelity: Ego Strengths as Predictors of Career Identity". 2014

⁸ Summers & Falco. *The Development and Validation of a New Measure of Adolescent Purpose*. 2020

⁹ King et al. *Positive affect and the experience of meaning in life*. 2006

Measurement Tool

nXu developed a research-based online survey assessment aligned with the curriculum's units. The curriculum was created with input from independent experts on the five key developmental areas noted above. The measurement tool was pilot tested for validity, with several items per construct to ensure reliability, using a 5-point scale. Factor analysis was performed annually to refine the survey.

Evaluation Procedure

The study used a quasi-experimental design to compare pre- and post-survey responses between 12th-grade students who received the nXu curriculum and those who did not. Participants were 16-17-year-old students from a New York City public school during the 2021-2022 academic year. All students were enrolled in a Senior Seminar course, but only the intervention group received nXu's curriculum. Both groups completed the same surveys before and after the course's completion.

Participants

Participants included 104 students from a New York City public school. Of these, 53 were randomly assigned to receive nXu's curriculum, and 51 were assigned to the control group.

DEMOGRAPHICS

Within the intervention group, 31 participants identified as female, 18 participants identified as male, 3 participants identified as non-binary/genderqueer, and 1 participant preferred not to answer. Within the control group, 22 participants identified as female, 27 participants identified as male, 1 participant identified as non-binary/genderqueer, and 1 participant preferred not to answer.

Within the intervention group, 8 participants identified as Hispanic or Latinx, 37 participants identified as Black or African American, 3 participants identified as Middle Eastern or North African, 2 participants identified as Asian or Asian American, and 3 participants preferred not to answer or identified as Other.

Within the control group, 8 participants identified as Hispanic or Latinx, 40 participants identified as Black or African American, 1 participant identified as Middle Eastern or North African, 0 participants identified as Asian or Asian American, and 2 participants preferred not to answer or identified as Other.

MISSING DATA

There were 165 students originally selected to be part of the research and evaluation study. However, students who did not assent to be part of the study were removed from the dataset (n=20). Students who did not complete the entire survey (n=21) and/or did not have both a pre-survey and post-survey response were also removed from the dataset (n=20). The remaining 104 students participated in the study.

RECRUITMENT AND CONSENT

Teachers received training to implement nXu's curriculum and taught it to a portion of the class. Intervention students could choose to participate or not, while others not experiencing the curriculum could join as control students upon their consent. Control participants excluded students who had prior exposure to nXu's curriculum. Parents or guardians had the choice to opt their child out of the study.

Measures

Participants were asked to complete a thirty-minute survey—consisting of 66 survey items—twice during the 2021-22 school year, once to establish a baseline prior to receiving the curriculum and a second time after the end of the program.

The self-report surveys included between 9 and 15 survey questions per developmental area, and asked students to reflect on their agreement with statements and rate their agreement on a 5-point scale. For example, in the Purpose-Driven developmental area, the students responded with their agreement to the statement, "My life has a clear sense of purpose." A rating of '5' on the five-point scale would indicate a stronger agreement with the statement, while a rating of '1' would indicate little or no agreement.

Analyses

Student responses were summarized by a pre-survey and post-survey average for each developmental area and overall. For all matching, assenting, and completed surveys, the pre-survey mean and post-survey mean difference was calculated to find the **pre-post change value**.

To compare changes in student responses from pre-surveys to post-surveys between the control and nXu curriculum groups, Welch's t-test was used. This compared pre-post changes in both groups overall and within

five developmental areas. Additionally, an Analysis of Covariance (ANCOVA) was applied to post-intervention survey scores, controlling for pre-intervention scores as a covariate.

BASELINE COMPARISON

To ensure comparability between the control and nXu curriculum groups, their baseline equivalence was confirmed by comparing pre-survey response means using a Welch's t-test for significance.

An alpha level of .05 guided all analyses. The pre-survey response means for the control group ($M = 3.69, SD = .60$) and the nXu curriculum group ($M = 3.66, SD = .60$) showed no significant difference, $t(101.90) = .29, p = .77$, confirming their equivalence. Variance and distribution of overall pre-post change means were compared between the control and nXu curriculum groups.

Results

Changes in Survey Responses After Curriculum

A comparison of means was used to analyze the responses of the intervention group before the curriculum and after the curriculum. Results revealed that students who received nXu's curriculum experienced 3x growth in sense of purpose and 2x growth in SEL skills (specifically, developmental relationships). More specifically, statistically significant positive differences in mean scores were found for three developmental areas: Overall, Emotional Wellness, and Positive Social Behavior.

OVERALL

There was a significant difference in pre-post change scores for overall SEL scores between students who experienced the nXu curriculum ($M = .069, SD = .44$) and students who did not ($M = -.13, SD = .50$), $t(99) = 2.1219, p = .02$.

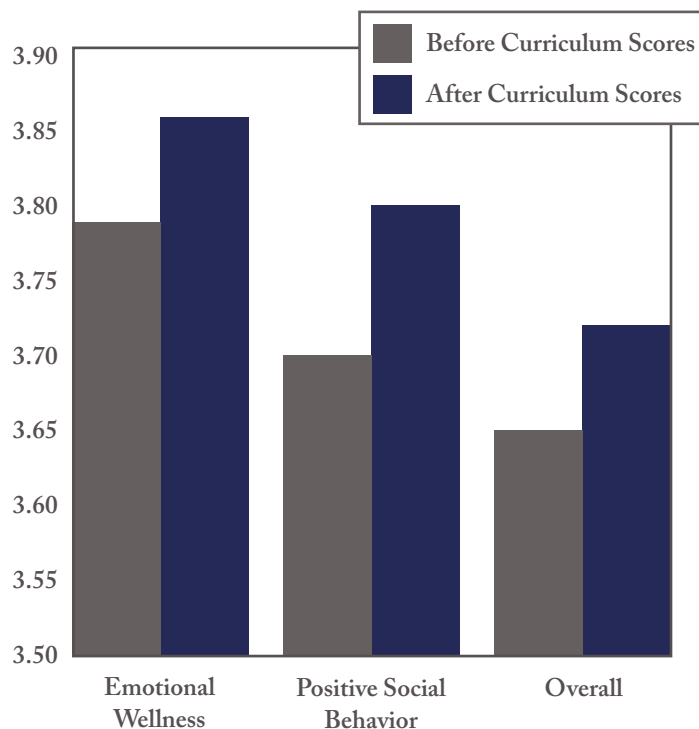
EMOTIONAL WELLNESS

Students in the intervention group experienced greater pre-post change in the Emotional Wellness developmental area ($M = .069, SD = .57$) than students in the control group ($M = -.20, SD = .61$), $t(101) = 2.3609, p = 0.01$. nXu defines emotional wellness as identifying and managing one's emotions and behaviors.

POSITIVE SOCIAL BEHAVIOR

Students in the intervention group also experienced greater pre-post change in the Positive Social Behavior area ($M = .11, SD = .61$) than students in the control group ($M = -.20, SD = .65$), $t(101) = 2.4621, p = .008$. nXu adheres to CASEL's definition of "improved positive social behavior", which is statistically significant improvement on measures of students' positive social behaviors (e.g., positive peer relations, conflict resolution behaviors).

Students Self-Reported Higher Scores After Receiving the nXu Curriculum



Changes in Survey Responses Between Intervention and Control Groups

The ANCOVA results demonstrated a significant difference in post-intervention survey scores between the intervention and control groups in specific developmental areas. This indicates that the intervention program had a noticeable effect on social-emotional outcomes compared to the control group, even after adjusting for initial survey responses. The nonsignificant result in comparing the homogeneity of pretest values suggests equal variances and reinforces the reliability of the ANCOVA findings.

Developmental Area	Intervention Group Mean Score	Control Group Mean Score	p-value
Overall (Grand Total)	3.72	3.56	0.028*
Emotional Wellness	3.86	3.73	0.043*
Positive Social Behavior	3.80	3.55	0.008*
Purpose-Driven	3.73	3.49	0.042*

EMOTIONAL WELLNESS

Students in the intervention had higher mean survey responses indicating stronger agreement with the statements in the Emotional Wellness construct than the students in the control group ($F(1,101)=4.197$, $p=.043$) after experiencing nXu's curriculum.

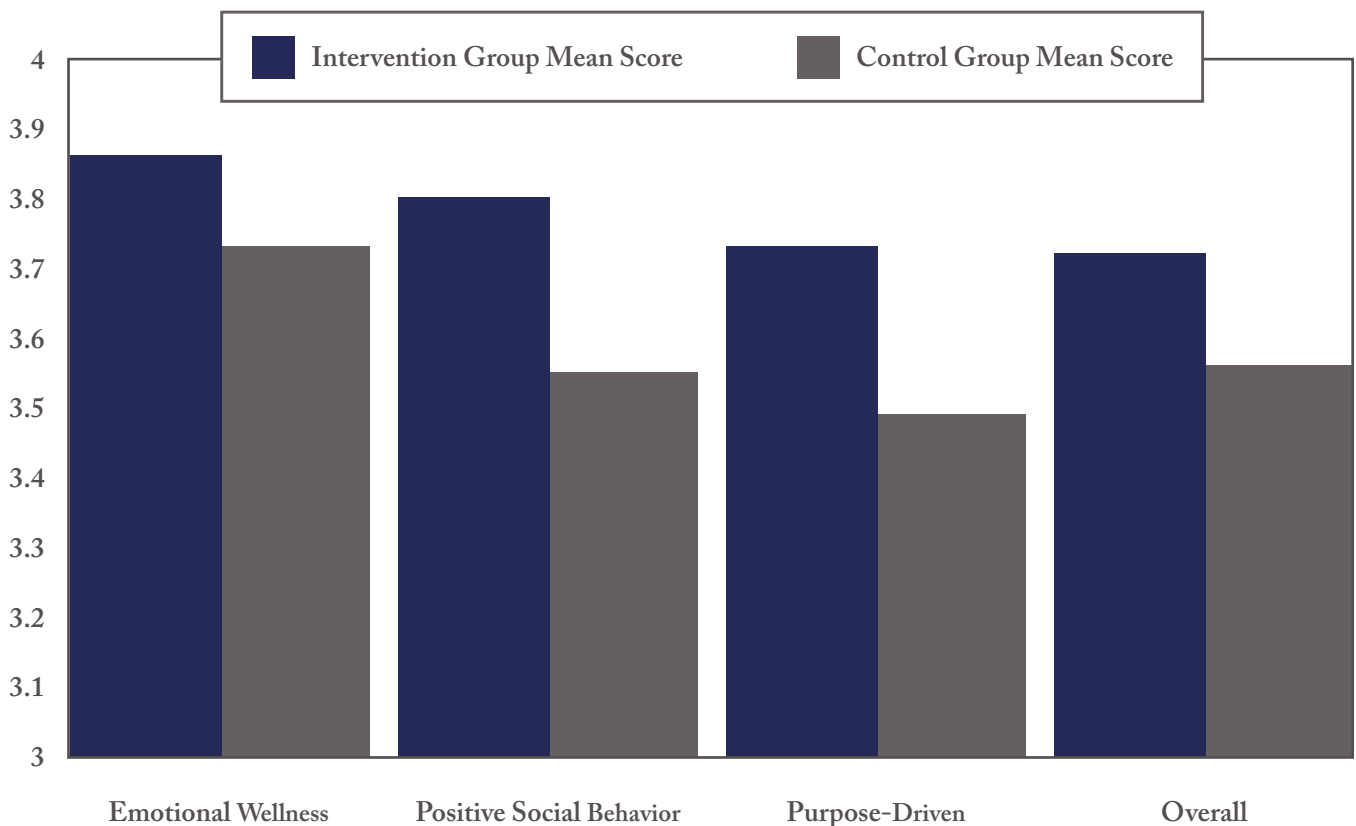
POSITIVE SOCIAL BEHAVIOR

Students in the intervention had higher mean survey responses indicating stronger agreement with the statements in the Positive Social Behavior construct than the students in the control group ($F(1,101)=7.254$, $p=.008$) after experiencing nXu's curriculum.

PURPOSE-DRIVEN STUDENTS

Students in the intervention had higher mean survey responses indicating stronger agreement with the statements in the Purpose-Driven construct than the students in the control group ($F(1,101)=4.238$, $p=.042$) after experiencing nXu's curriculum.

nXu Intervention Group Mean Survey Score Compared with Control Group After Curriculum



Conclusions

Overall, our findings suggest that students exposed to nXu’s curriculum showed more positive responses in **Emotional Wellness, Positive Social Behavior, Purpose-Driven, and Overall** averaged responses compared to those who didn’t experience it. Controlling for initial differences in pre-survey responses enhanced the validity of our results, indicating that the observed disparities in post-intervention scores weren’t solely due to initial variations. The higher survey responses in the intervention group highlight the effectiveness of the program in fostering positive outcomes, suggesting its potential relevance in similar settings.

This assessment yielded statistically significant results for nXu’s constructs of “positive social behavior,” “purpose-driven,” and “emotional wellness.” Purpose is a crucial SEL skill for adolescents, strongly linked to psychological well-being. These findings align significantly with CASEL’s competencies of “improved SEL skills and attitudes” and “enhanced student positive social behavior.”

While not all developmental areas showed significant differences between the intervention and control groups, the overall average remained significant. This analysis offers nXu the chance to reflect on which developmental areas are impactful and where improvements could be made in future implementation.

Purpose, which is central to one’s identity, has been linked to resilience, well-being, and academic engagement, but has not been researched in connection with SEL competencies.¹⁰ The literature on social-emotional learning curricula suggests that these interventions can be effective in improving mental health, academic achievement, and emotional development.¹¹

This evaluation provides evidence that nXu’s curriculum is effectively enabling students to improve their social-emotional learning skills and attitudes, improve in positive social behavior, and become more purpose-driven.

¹⁰ Malin, Heather. *Teaching For Purpose*. 2018

¹¹ West et al., 2020; Panayiotou et al., 2019; Conduct Problems Prevention Research Group, 2010

References

- Anthis, Kristine. "Hope, Will, Purpose, Competence, & Fidelity: Ego Strengths as Predictors of Career Identity". 2014
- Burrow, O'Dell, & Hill. "Profiles of a Developmental Asset: Youth Purpose as a Context for Hope & Well-Being". 2009
- Conduct Problems Prevention Research Group (2010). The effects of a multiyear universal social-emotional learning program: The role of student and school characteristics. *Journal of Consulting and Clinical Psychology* 78(2), 156-168. Doi: 10.1037/a0018607
- Damon, William. *The Path to Purpose*. 2008
- Damon, W., Menon, J., & Bronk, K. C. (2019). The development of purpose during adolescence. In *Beyond the Self* (pp. 119-128). Routledge.
- Kiang, Lisa and Fuligni, Andrew. "Meaning in Life as a Mediator of Ethnic Identity and Adjustment Among Adolescents from Latin, Asian, and European American Backgrounds". 2010
- Malin, H., Liauw, I., & Remington, K. (2019). Early adolescent purpose development and perceived supports for purpose at school. *Journal of Character Education*, 15(2), 1-20.
- King, L. A., Hicks, J. A., Krull, J. L., & Del Gaiso, A. K. (2006). Positive affect and the experience of meaning in life. *Journal of personality and social psychology*, 90(1), 179.
- Malin, Heather. *Teaching for Purpose: Preparing Students for Lives of Meaning*. 2018
- Malin, Heather, "Teaching Purpose for Resilience and Healing", Harvard Graduate School of Education. January 31, 2019. <https://www.hepg.org/blog/teaching-purpose-for-resilience-and-flourishing>
- Panayiotou, M., Humphrey, N., & Wigelsworth, M. (2019). An empirical basis for linking social and emotional learning to academic performance. *Contemporary Educational Psychology* 56, 193-204. doi:10.1016/j.cedpsych.2019.01.009.
- Summers, J. J., & Falco, L. D. (2020). The development and validation of a new measure of adolescent purpose. *The Journal of Experimental Education*, 88(1), 47-71. <https://doi.org/10.1080/00220973.2019.1575178>
- West, M. R., Pier, L., Fricke, H., Hough, H., Loeb, S., Meyer, R. H., & Rice, A. B. (2020). Trends in student social-emotional learning: Evidence from the first large-scale panel student survey. *Educational Evaluation and Policy Analysis* 42(2), 279-303. doi:10.3102/0162373720912236
- Yeager, David, et al. "Boring but Important: A Self Transcendent Purpose for Learning Fosters Academic Self-Regulation". 2015

Contributors

Research Team

Yutaka Tamura

Executive Director at nXu

Maggie Antonelli

Curriculum Designer at nXu

Laura Kelly

Research and Operations Coordinator at nXu

Cat Lum

Senior Director of Partnerships & Strategy at nXu

Dr. Heather Malin

Director of Research at Stanford's Center on Adolescence

Evaluation Team

Jessica Felix

Bridget Moran

Romy Stancofski

Laura Kelly

Laura McGhee