

[ LEARNING IN FOCUS ]

# Examining Iowa Students' Engagement in Grades Five Through 12



## **COPYRIGHT STANDARDS**

This document contains proprietary research, copyrighted and trademarked materials of Gallup, Inc. Accordingly, international and domestic laws and penalties guaranteeing patent, copyright, trademark and trade secret protection safeguard the ideas, concepts and recommendations related within this document.

The materials contained in this document and/or the document itself may be downloaded and/or copied provided that all copies retain the copyright, trademark and any other proprietary notices contained on the materials and/or document. No changes may be made to this document without the express written permission of Gallup, Inc.

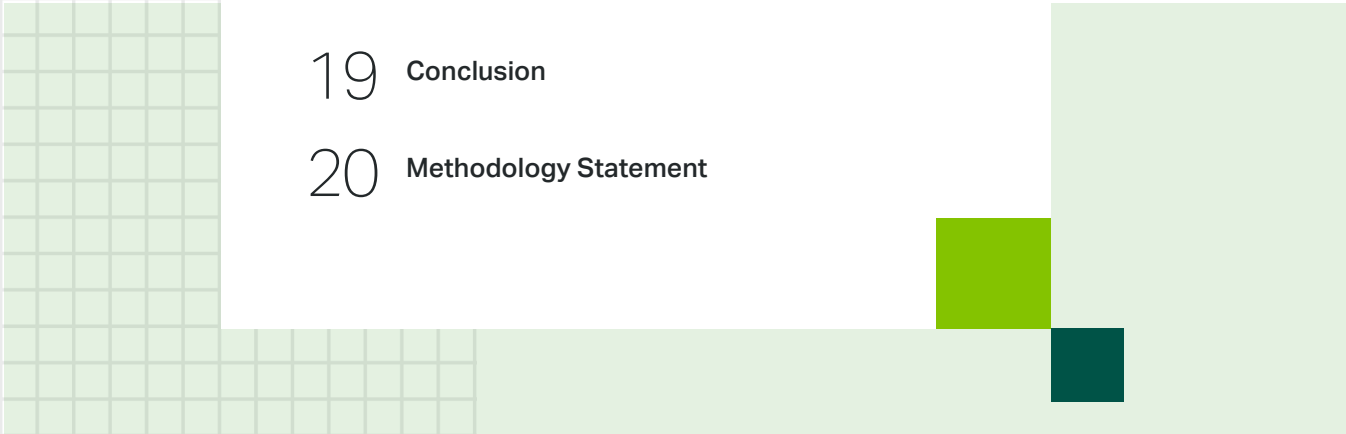
Any reference whatsoever to this document, in whole or in part, on any webpage must provide a link back to the original document in its entirety. Except as expressly provided herein, the transmission of this material shall not be construed to grant a license of any type under any patents, copyright or trademarks owned or controlled by Gallup, Inc.

Gallup® is a trademark of Gallup, Inc. All rights reserved. All other trademarks and copyrights are property of their respective owners.



# Table of Contents

1	Introduction
2	Key Findings
3	Defining Student Engagement in Learning
5	Learning Experiences in the Classroom
11	Learning Experiences Beyond the Classroom
15	Life After Graduation: Where Do High School Students Stand?
19	Conclusion
20	Methodology Statement



# Introduction

Engagement in learning is a key factor in shaping students' academic success and future aspirations.<sup>1,2,3</sup> However, recent research indicates that many students feel disconnected from their learning experiences.

**Fewer than two in 10 Gen Z students strongly agree that what they are learning in class feels important, interesting or challenging.<sup>4</sup>**

This disconnect is particularly pronounced among students who do not plan to attend college, raising concerns about how effectively schools are connecting with and preparing all learners for their future. Furthermore, Gallup research has shown that engagement steadily declines as students progress through their education, with noticeable drops beginning as early as grade five and continuing through high school.<sup>5</sup>

At the same time, the United States is facing broader challenges in education. Americans' satisfaction with the quality of the nation's public education system has reached a record low,<sup>6</sup> further underscoring the need to understand the educational experiences of today's students and identify opportunities to foster greater engagement in learning.

To gain deeper insights into the current state of student engagement in learning in Iowa, Opportunity Education Foundation partnered with Gallup to survey students in grades five through 12. This study provides a snapshot of how Iowa students engage in learning both in and out of the classroom, examining their academic and extracurricular experiences, attitudes toward learning, and future aspirations. The findings offer valuable and actionable insights to help Iowa teachers, schools and policymakers better support students today while also preparing them for success in the years ahead.



- 1 Lei, H., Cui, Y., & Zhou, W. (2018). Relationships between student engagement and academic achievement: A meta-analysis. *Social Behavior and Personality: An International Journal*, 46(3), 517-528.
- 2 Khattab, N. (2015). Students' aspirations, expectations and school achievement: What really matters? *British Educational Research Journal*, 41(5), 731-748.
- 3 Cunninghame, I., Vernon, L., & Pitman, T. (2020). To be seen and heard: Enhancing student engagement to support university aspirations and expectations for students from low socioeconomic status backgrounds. *British Educational Research Journal*, 46(6), 1487-1506.
- 4 Hrynowski, Z. (2024, August 21). *K-12 schools struggle to engage Gen Z students*. Gallup. <https://news.gallup.com/poll/648896/schools-struggle-engage-gen-students.aspx>
- 5 Hodges, T. (2018, October 25). *School engagement is more than just talk*. Gallup. <https://www.gallup.com/education/244022/school-engagement-talk.aspx>
- 6 Saad, L. (2025, February 5). *Americans' state of the nation ratings remain at record low*. Gallup. <https://news.gallup.com/poll/656114/americans-state-nation-ratings-remain-record-low.aspx>

# Key Findings

This report provides an in-depth look at student engagement in learning among Iowa students in grades five through 12. It examines how classroom practices, extracurricular activities and life preparation initiatives influence students' academic success and future aspirations. The findings reveal critical insights into the dominant instructional methods, variations in engagement in learning by gender and age, and the broader implications of these trends for educational outcomes.

## FINDING NO. 1

**Just 11% of high school students feel very prepared for what comes next after graduation.**

While roughly five in 10 high school students (55%) report feeling prepared to some degree for life after high school, just 11% report feeling very prepared for what comes next. Those who teach themselves life skills — either in school (53% more likely) or outside of school (33% more likely) — report feeling more prepared for what the future holds.

## FINDING NO. 2

**Students are lacking agency in their educational journey.**

Just 28% of students agree or strongly agree that they get to make choices about what they learn in class. While 48% of middle school students report having control over their learning pace, this sense of agency declines with age, dropping to 35% in high school.

## FINDING NO. 3

**Engagement in learning varies across gender and age groups.**

Male and high school students report being less engaged in learning in class across multiple key indicators.

## FINDING NO. 4

**Lectures and independent work dominate class time.**

The top activities that students report regularly doing in class are listening to a teacher's lesson or lecture (76%), doing worksheets or assignments independently (71%), and collaborating with other students to solve problems or complete projects (61%).

## FINDING NO. 5

**Students report putting more effort into learning outside of school than in class.**

Fifty-five percent of students say they put a lot of effort into activities outside of school, compared with 45% who report putting a lot of effort into class activities.



# Defining Student Engagement in Learning

Opportunity Education Foundation defines student engagement in learning as the degree to which students are not only participating in but also excited about, investing in and taking active steps to advance their own learning — both in and outside of the classroom.

**Student engagement in learning is composed of three main elements, each playing a crucial role in shaping a student's academic experience.<sup>7</sup>**



**Behavioral engagement:** This measure reflects students' participation and conduct in learning and social activities, such as attending school, completing assignments and participating in school-related extracurriculars.



**Cognitive engagement:** This measure focuses on students' dedication to learning, including striving for mastery in topics or subjects, utilizing strategies to facilitate learning, and self-regulating in learning environments.



**Emotional engagement:** This measure relates to students' feelings and attitudes toward learning and the school environment, including anxiety, boredom, enjoyment and a sense of belonging.



<sup>7</sup> Lester, D. (2013). A review of the student engagement literature. *Focus on Colleges, Universities, and Schools*, 7(1), 1-8.

## Student engagement is a strong predictor of key educational outcomes.

Academic achievement (e.g., GPA, standardized test scores) is frequently used to assess an individual student's level of performance or the performance of a teacher or school, as well as the success of an educational system as a whole.<sup>8</sup> A recent meta-analysis shows that higher levels of engagement in learning — particularly behavioral — are associated with academic achievement.<sup>9</sup>

Educational aspirations, or beliefs about future education plans, have also been shown to be linked to engagement in learning.<sup>10</sup> Both cognitive engagement and emotional engagement have been linked to increased aspirations among high school students to pursue a college degree.<sup>11</sup> Furthermore, research shows that student engagement in learning not only increases educational aspirations among high school students but also is predictive of college enrollment and persistence through the first year.<sup>12</sup>

Understanding and measuring student engagement in learning is essential for schools seeking to improve learning outcomes. By fostering active participation, intellectual curiosity, and meaningful connections between students and their learning, schools can create environments that not only enhance academic performance but also equip students with the skills, confidence and mindset needed for long-term success.

---

8 Lei, H., Xu, G., Shao, C., & Sang, J. (2015). The relationship of teachers' caring behavior and students' academic development: The mediating role of learning self-efficacy. *Psychological Development and Education, 31*(2), 188-197.

9 Lei, H., Cui, Y., & Zhou, W. (2018). Relationships between student engagement and academic achievement: A meta-analysis. *Social Behavior and Personality: An International Journal, 46*(3), 517-528.

10 Khattab, N. (2015). Students' aspirations, expectations and school achievement: What really matters? *British Educational Research Journal, 41*(5), 731-748.

11 Cunninghame, I., Vernon, L., & Pitman, T. (2020). To be seen and heard: Enhancing student engagement to support university aspirations and expectations for students from low socioeconomic status backgrounds. *British Educational Research Journal, 46*(6), 1487-1506.

12 Fraysier, K., Reschly, A., & Appleton, J. (2020). Predicting postsecondary enrollment with secondary student engagement data. *Journal of Psychoeducational Assessment, 38*(7), 882-899.

# Learning Experiences in the Classroom

## What Activities Are Students Regularly Doing in Class?

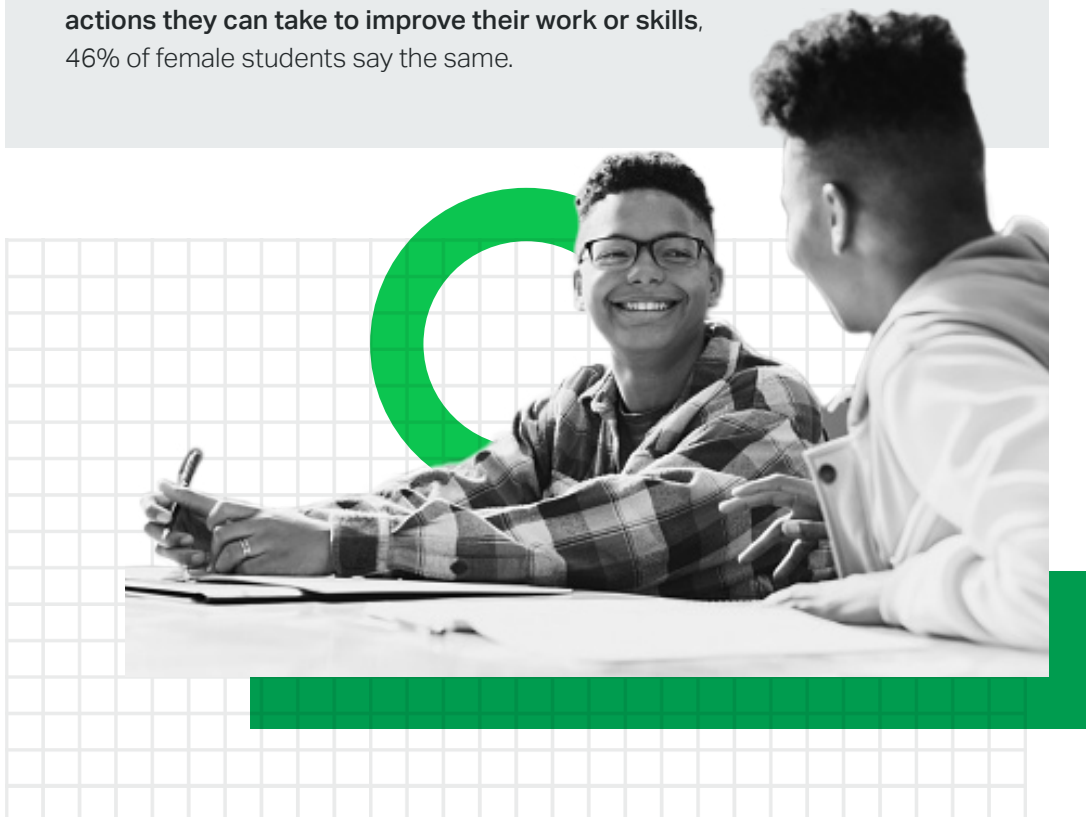
In the classroom, students participate in a mix of traditional and active learning activities, with varying levels of participation across different instructional methods. Traditional learning activities are the most common, with 76% of Iowa students saying they regularly listen to teacher-led lessons or lectures and 71% saying they regularly work independently on worksheets or assignments.

♂ 35% vs. 44% ♀

Compared with 35% of male students, 44% of female students report **regularly preparing for class by completing activities in advance.**

♂ 35% vs. 46% ♀

While 35% of male students say they **regularly discuss actions they can take to improve their work or skills,** 46% of female students say the same.





In contrast, 61% of students report regularly collaborating with peers to solve problems or complete projects, making it the most common active learning activity. Active learning — characterized by discussion, problem-solving and hands-on projects — has been shown to enhance critical thinking, increase retention and improve overall academic performance.<sup>13,14</sup> While students are less likely to report frequent participation in active learning activities than in traditional learning activities, those who do engage in them regularly report earning higher grades, reinforcing research linking active learning approaches to stronger student performance.<sup>15</sup>

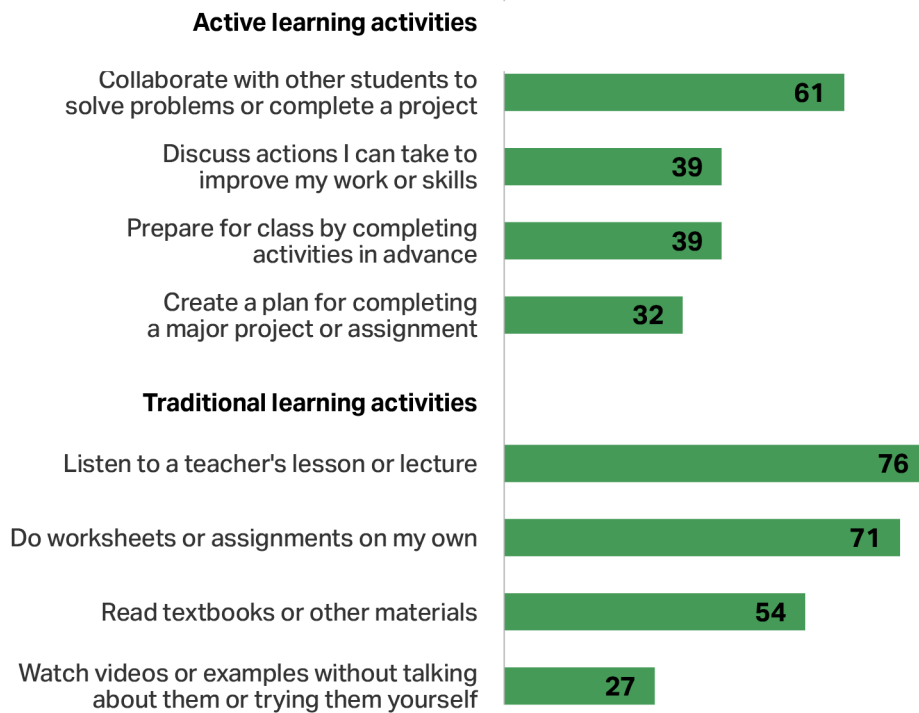
**CHART 1**

**Which of the following activities do you do regularly in your classes?**

Select all that apply.

Among students in grades five through 12

■ % Selected



13 Bonwell, C., & Eison, J. (1991). *Active learning: Creating excitement in the classroom* (ASHE-ERIC Higher Education Report No. 1). ERIC Clearinghouse on Higher Education, The George Washington University.

14 Prince, M. (2013). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223-231.

15 Freeman, S., Eddy, S., McDonough, M., Smith, M., Okoroafor, N., Jordt, H., & Wenderoth, M. (2014). Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy of Sciences of the United States of America*, 111(23), 8410-8415.

## Are Students Engaging in Learning in Class?

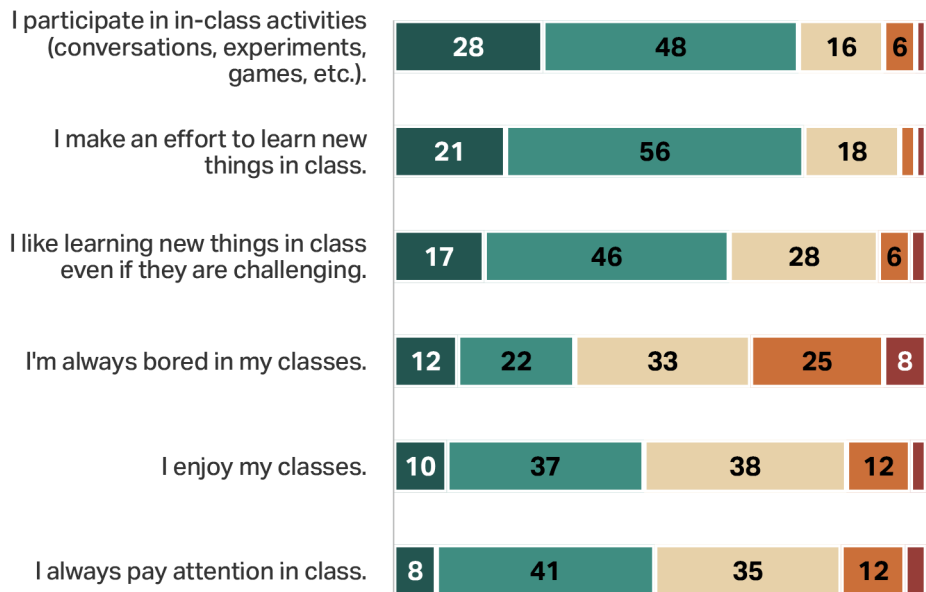
Building on past research and academic literature, Opportunity Education Foundation and Gallup developed an index, consisting of six items, to measure student engagement in learning in class. This index provides insights into how students interact with their learning environment and the extent to which they feel connected to their education.

CHART 2

### Student Engagement in Learning in Class

Among students in grades five through 12

■ % Strongly agree ■ % Agree ■ % Neutral ■ % Disagree ■ % Strongly disagree



Seventy-six percent of students agree or strongly agree that they participate in in-class activities. Similarly, 77% of students report making an effort to learn new things in class.

However, strong agreement on these items is much lower — just 28% and 21%, respectively — suggesting that while most students are exerting some level of effort in the classroom, fewer demonstrate a deep commitment to their learning.

Students' attitudes toward learning and their ability to stay focused in class offer further insight into engagement in learning. Sixty-three percent of students agree or strongly agree that they like learning new things in class even if they are challenging. However, maintaining focus presents a greater challenge, with roughly one in two students (49%) agreeing or strongly agreeing that they always pay attention in class.

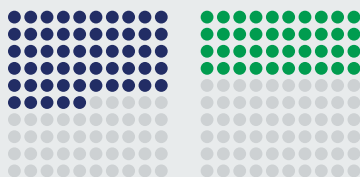
Less than half of students (47%) agree or strongly agree that they enjoy their classes. That figure is further tempered by low levels of strong agreement, with just 10% strongly agreeing that they enjoy their classes. Meanwhile, 34% of students agree or strongly agree that they are always bored in class. This suggests that while a majority of students are involved in their classes, a sizable number are struggling to remain interested.

Students who report higher levels of engagement in learning in class also report higher grades, reinforcing previous research on the relationship between participation and achievement.<sup>16</sup> However, engagement in learning in class is not uniform across all students, with notable differences emerging by grade level and gender.

High school students (grades nine through 12) report lower levels of engagement in learning compared with their middle school peers (grades five through eight). While 81% of middle school students agree or strongly agree that they participate in in-class activities, this figure falls to 70% among high school students, highlighting a shift in students' behavior in class as they age. This pattern aligns with a long-standing Gallup trend showing that engagement in learning begins to decline in grade five and continues to decrease through the end of high school.<sup>17</sup>

Additionally, gender differences further highlight variations in students' engagement in learning. Forty percent of male students agree or strongly agree that they always feel bored in their classes, compared with 26% of female students.

**Students who report higher levels of active learning experience less boredom in class, reinforcing the need for more interactive, student-centered instruction to foster engagement in learning.**



**55% vs. 40%**

Compared with 55% of middle school students, 40% of high school students **agree or strongly agree that they enjoy their classes.**

16 Lei, H., Cui, Y., & Zhou, W. (2018). Relationships between student engagement and academic achievement: A meta-analysis. *Social Behavior and Personality: An International Journal*, 46(3), 517-528.

17 Hodges, T. (2018, October 25). *School engagement is more than just talk*. Gallup. <https://www.gallup.com/education/244022/school-engagement-talk.aspx>

## Do Students Report Having Agency in Learning?

Student agency — the ability to make choices about one’s learning and take an active role in shaping educational experiences — is a key factor in student motivation and engagement.<sup>18</sup> While many Iowa students actively seek opportunities to expand their knowledge, far fewer feel they have control over or a say in their learning experiences.

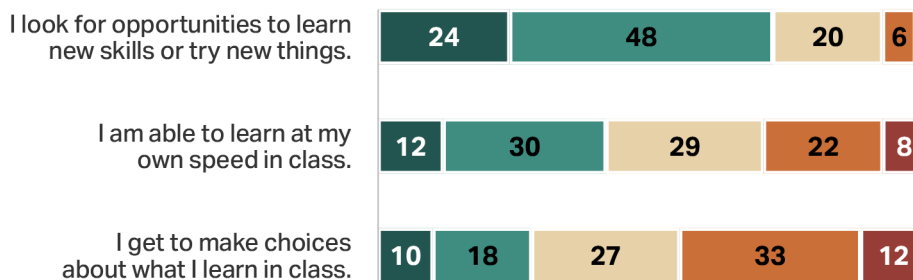
Roughly three in four students (72%) agree or strongly agree that they seek out opportunities to learn new skills or try new things. However, less than half (42%) say they are able to learn at their own speed in class, with this sense of autonomy declining as students advance through school. While 48% of middle school students report having control over their learning pace, that figure drops to 35% among high school students. Beyond pacing, only 28% of students agree or strongly agree that they get to make choices about what they learn in class, highlighting a lack of autonomy in shaping their educational journey.

**Students with greater agency are more likely to be engaged in learning in class. These same students also report earning higher grades, further underscoring the importance of creating classroom environments that empower students with meaningful opportunities to actively participate in and shape their learning experiences.**

**CHART 3**  
**Student Agency in Learning**

Among students in grades five through 12

■ % Strongly agree ■ % Agree ■ % Neutral ■ % Disagree ■ % Strongly disagree



18 Vaughn, M. (2020). What is student agency and why is it needed now more than ever? *Theory Into Practice*, 59(2), 109-118.

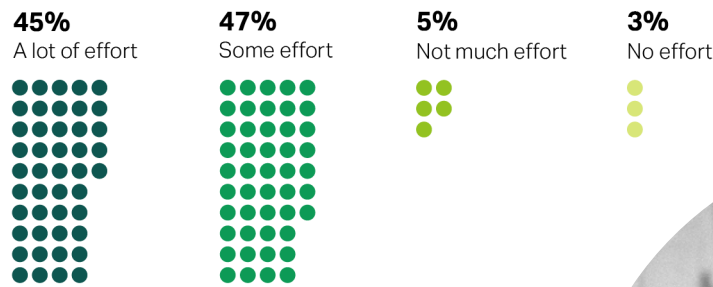
## Roughly One in Two Students Say They Put a Lot of Effort Into Class Activities

Almost half of Iowa students (45%) report putting a lot of effort into their class activities, with another 47% saying they put in some effort, indicating that the vast majority of students are willing to apply themselves to some degree in the classroom.<sup>19</sup> Students' level of effort in class activities is closely linked to attitudes toward learning. Students who seek out opportunities to learn new skills or try new things are more than twice as likely as those who do not to say they put a lot of effort into their classwork, reinforcing the importance of fostering environments that promote intellectual curiosity and meaningful engagement with academic content as a means to facilitate greater learning.

### CHART 4

#### In school, how much effort do you put into class activities?

Among students in grades five through 12



<sup>19</sup> Self-reported measures of effort may be subject to social desirability bias, as students may feel inclined to present themselves more favorably when assessing their own level of effort.

# Learning Experiences Beyond the Classroom

## What Learning Activities Are Students Involved in Outside of the Classroom?

Learning extends beyond the classroom, with Iowa students engaging in a variety of activities that support both their academic and personal development. Sports (65%) and music (46%) are students' most common extracurricular activities. Self-directed learning is the third most selected activity, with about one in three students (35%) indicating that they are learning new skills on their own. On average, students report participating in three extracurricular activities or skill-building opportunities outside of the classroom.



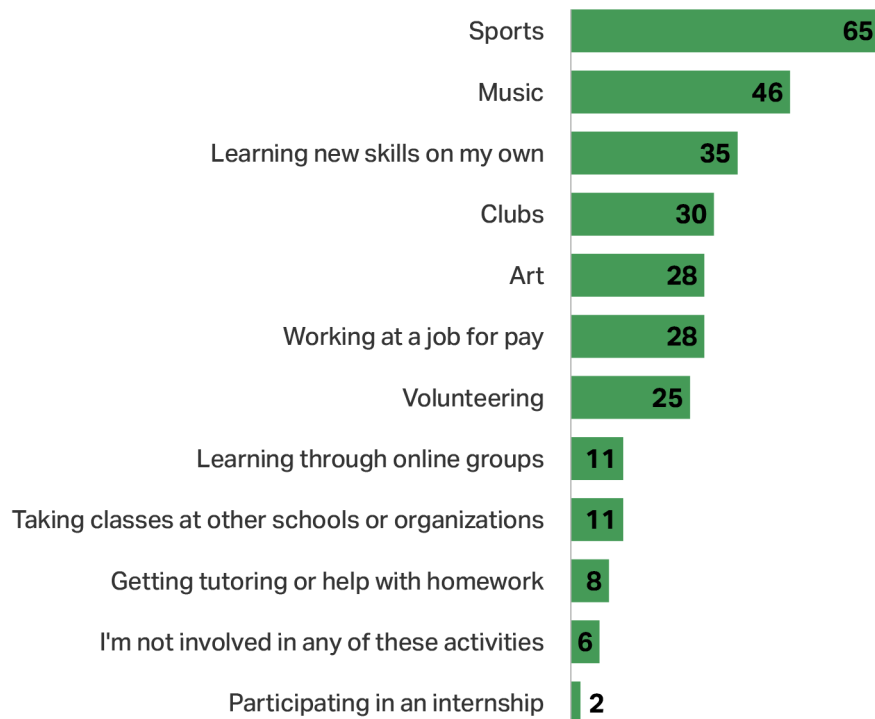
**CHART 5**

### Which of the following activities are you involved in?

Select all that apply.

Among students in grades five through 12

■ % Selected





## There Are Gender and Age Group Differences in the Activities Students Are Involved in

Among Iowa students, extracurricular involvement varies by both gender and age, with notable differences in participation across key activities. Female students are more likely than male students to report involvement in art, clubs, music, and learning new skills on their own. This trend is further reflected in overall participation levels, as 60% of female students report being involved in three or more extracurricular activities, compared with 48% of male students.

Age group differences also reveal distinct participation patterns. Middle school students are more likely than their high school counterparts to participate in sports and art, while high school students are more likely to report working at a job for pay, volunteering, and taking classes at other schools or organizations. These shifts likely reflect students' evolving interests and obligations as they progress through their academic journey.

Which of the following activities are you involved in? <i>Select all that apply.</i>	Male students %	Gender difference (pct. pts.)	Female students %	Middle school students %	Age difference (pct. pts.)	High school students %
Sports	70	+8	62	71	+12	59
Music	37	+19	56	49	+6	43
Learning new skills on my own (like coding, knitting, etc.)	23	+24	47	35	0	35
Clubs	26	+8	34	30	0	30
Working at a job for pay	29	+2	27	9	+38	47
Volunteering	24	+4	28	16	19	35
Art	20	+17	37	34	+12	22
Taking classes at other schools or organizations	8	+5	13	2	+18	20
Learning through online groups (like social media groups, discussion websites, Khan Academy, etc.)	8	+6	14	10	+2	12
Getting tutoring or help with homework	8	+1	7	8	0	8
Participating in an internship	2	0	2	0	+4	4
I'm not involved in any of these activities	8	+6	2	9	+6	3

## Are Students Engaging in Learning Outside of the Classroom?

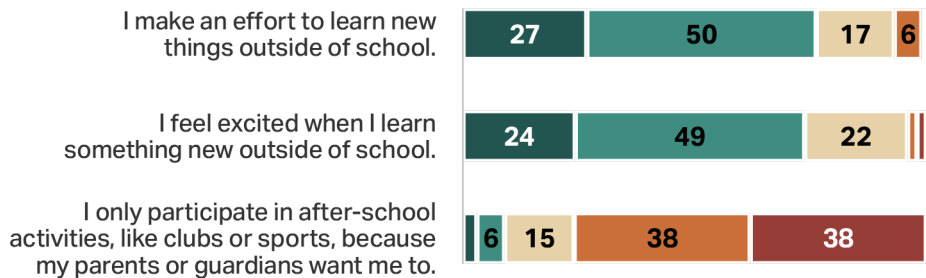
Building on past research and academic literature, Opportunity Education Foundation and Gallup developed an index, consisting of three items, to measure student engagement in learning outside of the classroom. This index provides insight into Iowa students' participation in and attitudes toward learning experiences outside of school.

### CHART 6

#### Student Engagement in Learning Outside of the Classroom

Among students in grades five through 12

■ % Strongly agree ■ % Agree ■ % Neutral ■ % Disagree ■ % Strongly disagree



**A majority of Iowa students report taking an active role in their education beyond the classroom, with 77% of students agreeing or strongly agreeing that they make an effort to learn new things outside of school. Additionally, three in four students (73%) say they feel excited when they learn something new outside of school.**

For most students, extracurricular activities are about more than external expectations. Just 9% of students agree or strongly agree that they only participate in after-school activities because their parents or guardians want them to, suggesting that students largely participate in these activities because they find them meaningful or enjoyable. This enthusiasm is reflected in participation patterns — students who say they make an effort to learn new things outside of school are 73% more likely to be involved in three or more activities or skill-building opportunities outside of class, highlighting a connection between self-directed learning and broader engagement in extracurricular activities.

## Over Half of Students Say They Put a Lot of Effort Into Activities Outside of School

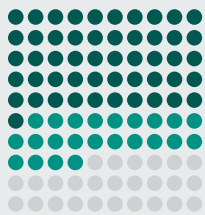
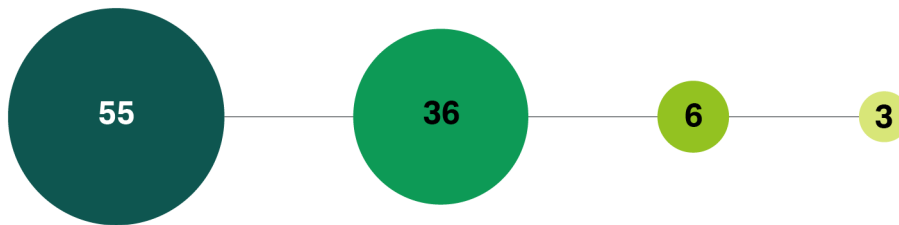
Iowa students extend their learning beyond the classroom, dedicating time and energy to extracurricular activities, personal projects and skill-building opportunities. Fifty-five percent of students report putting a lot of effort into activities outside of school, with an additional 36% saying they put in some effort.<sup>20</sup> This level of commitment surpasses the 45% of students who report putting a lot of effort into class activities. Students who agree or strongly agree that they feel excited when they learn something new outside of school are 27% more likely to report putting a lot of effort into their out-of-school activities, reinforcing the link between effort and engagement in learning.

### CHART 7

#### Outside of school, how much effort do you put into activities?

Among students in grades five through 12

■ % A lot of effort ■ % Some effort ■ % Not much effort ■ % No effort



# 74%

Seventy-four percent of students agree (51%) or strongly agree (23%) that they are teaching themselves skills outside of school that will help them later in life.

<sup>20</sup> Self-reported measures of effort may be subject to social desirability bias, as students may feel inclined to present themselves more favorably when assessing their own level of effort.

# Life After Graduation: Where Do High School Students Stand?

## There Is a Gender Gap When It Comes to Interest in Pursuing College or University

Despite growing concerns about college enrollment across the United States, 71% of Iowa high school students say they are considering attending college in the future.

♂ 58% vs. 85% ♀

However, a notable gender gap exists, with **85% of female high school students** expressing interest in college, compared with **58% of their male counterparts**.

This disparity reflects broader national trends, as declining enrollment rates have been largely driven by a decrease in young men pursuing higher education.<sup>21</sup> Instead, male high school students are more likely than their female counterparts to express interest in pursuing training for a skill or trade (43% vs. 24%, respectively), suggesting that young men may see alternative pathways as more viable or aligned with their future aspirations.

Engagement in learning in class plays a significant role in shaping students' interest in pursuing higher education. Students who actively participate in in-class activities are 97% more likely to be interested in attending college or university in the future. Similarly, those who make an effort to learn new things in class are 71% more likely to express interest in college. These findings reinforce prior research linking engagement in learning in class to future aspirations<sup>22</sup> and suggest that lower levels of engagement in learning among male students — including being more likely to say they are bored in class — could at least partially explain their lower interest in pursuing higher education.

21 Fry, R. (2023, December 18). *Fewer young men are in college, especially at 4-year schools*. Pew Research Center. <https://www.pewresearch.org/short-reads/2023/12/18/fewer-young-men-are-in-college-especially-at-4-year-schools/>

22 Cunnigham, I., Vernon, L., & Pitman, T. (2020). To be seen and heard: Enhancing student engagement to support university aspirations and expectations for students from low socioeconomic status backgrounds. *British Educational Research Journal*, 46(6), 1487-1506.

**CHART 8**

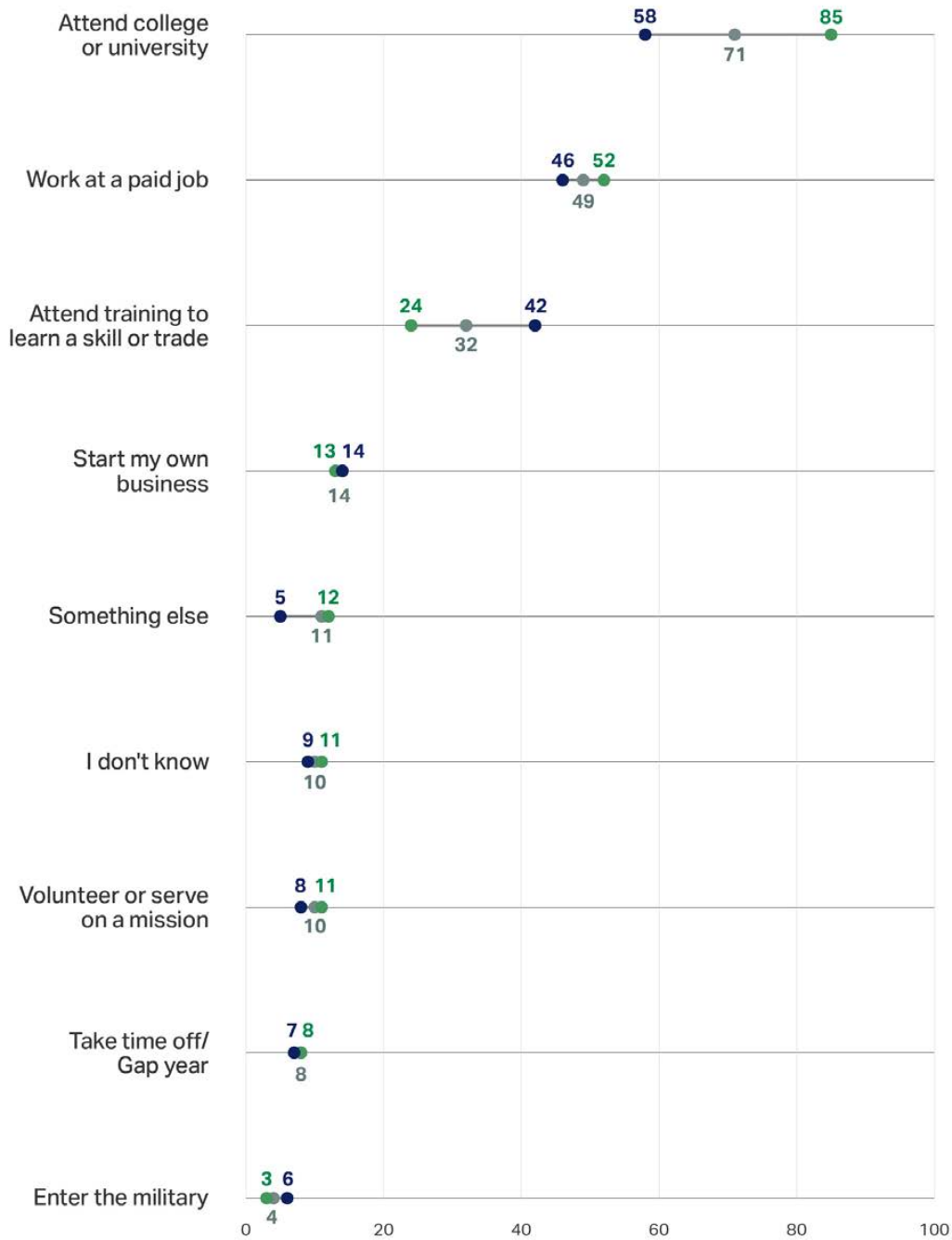
**Which of the following are you interested in doing in the future?**

Select all that apply.

Among students in grades nine through 12

% Selected

■ All students ■ Female students ■ Male students



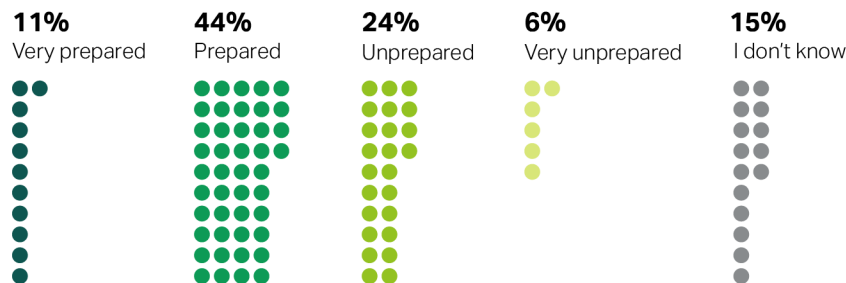
## Roughly One in Two High School Students Feel Prepared for Life After Graduation

As Iowa students approach the transition from high school to adulthood, more than half express confidence in their readiness for the future, though relatively few feel fully prepared. **Fifty-five percent of high school students report feeling prepared for life after high school, yet just 11% report feeling very prepared for what comes next.**

### CHART 9

#### How prepared do you feel for life after high school?

Among students in grades nine through 12



Students who take ownership in learning life skills — both in and outside of the classroom — are more likely to feel prepared for life beyond high school. High school students who agree or strongly agree that they are teaching themselves skills outside of school that will help them in life are 33% more likely to feel prepared. Similarly, those who report teaching themselves life skills in school are 53% more likely to feel prepared for the future.

Despite the benefits, many students do not report having such experiences in school. One in two high school students (49%) agree or strongly agree that they are teaching themselves life skills in school, highlighting a need for more targeted skill development. Participation in active learning activities — where students apply concepts through hands-on experiences and collaboration — is associated with higher levels of preparedness.

### ↑ 69% more likely

Students who agree or strongly agree that they like learning new things in class even if they are challenging are 69% more likely to say **they feel prepared or very prepared for life after high school.**



## Prepared High School Students Are More Likely to Believe They Will Make a Difference Someday

Iowa high school students who feel ready for life after graduation are more certain in their ability to make an impact on the world. About seven in 10 high school students (72%) agree or strongly agree they will make a difference someday. This belief is linked to students' sense of preparedness for the future.

**High school students who indicate that they are prepared for life after high school are 40% more likely to agree or strongly agree that they are positive they will make a difference someday.**

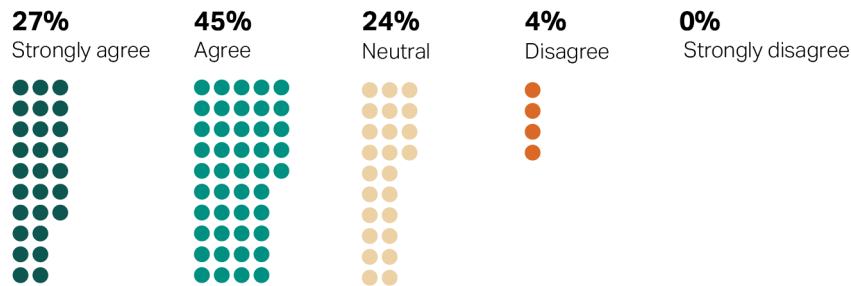
This connection underscores the importance of equipping students with the skills and confidence they need to navigate adulthood. When students feel capable and ready for their next step, they are more likely to see themselves as capable of creating positive change in their community and beyond.



CHART 10

### I am positive I will make a difference someday.

Among students in grades nine through 12

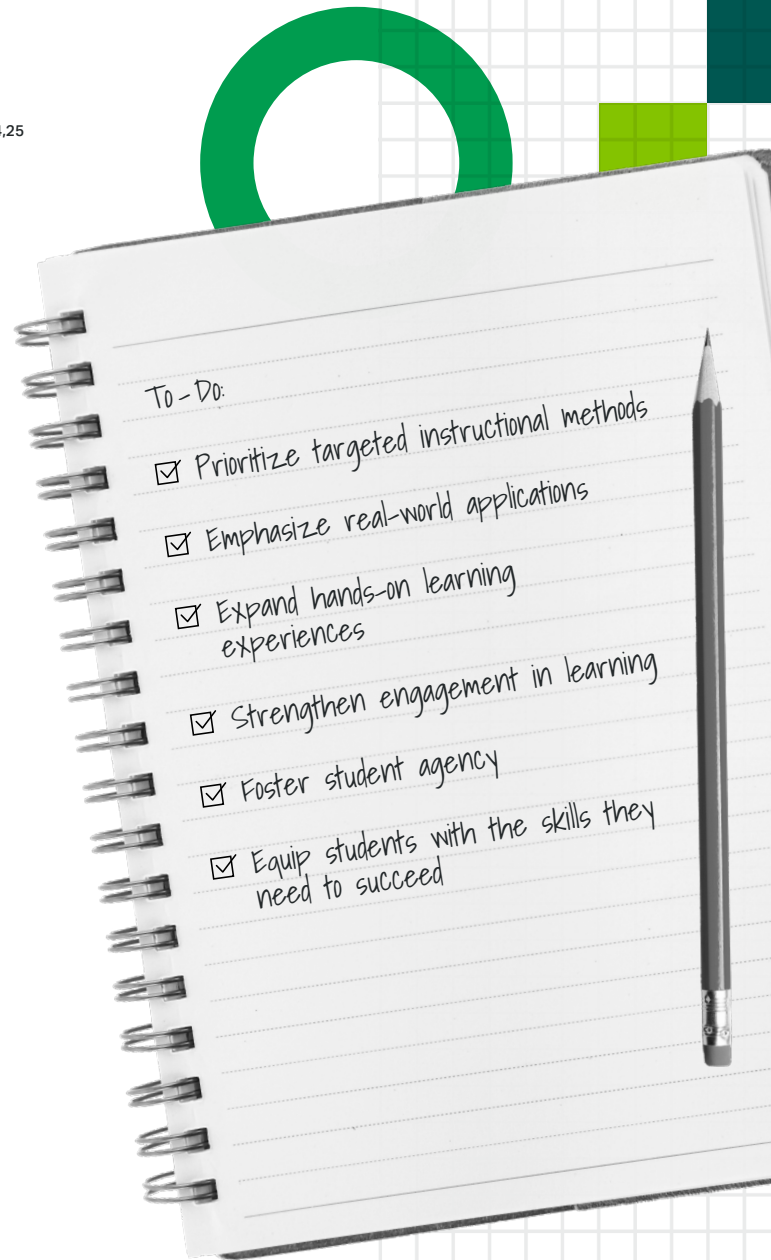


# Conclusion

**Engagement in learning is a key factor in shaping students' academic success and future aspirations.**<sup>23,24,25</sup>

The findings from this study highlight both strengths and opportunities in how Iowa students engage with learning, both in and out of the classroom. While many students report participating and investing in their educational journey, gaps in engagement in learning — particularly among high school and male students — suggest a need for more inclusive and student-driven approaches. Creating classroom environments that empower students with meaningful opportunities to actively participate in and shape their educational experiences can strengthen their connection to learning.

To support students in identifying and preparing for their future path, Iowa schools can prioritize targeted instructional methods that emphasize real-world applications, mentorship opportunities and career-connected learning. Expanding hands-on learning experiences can help students see how their education applies beyond the classroom, reinforcing its long-term value. Strengthening engagement in learning through targeted instructional approaches and fostering student agency will not only enhance academic outcomes but also equip students with the skills they need to succeed today and in the future.



23 Lei, H., Cui, Y., & Zhou, W. (2018). Relationships between student engagement and academic achievement: A meta-analysis. *Social Behavior and Personality: An International Journal*, 46(3), 517-528.

24 Khattab, N. (2015). Students' aspirations, expectations and school achievement: What really matters? *British Educational Research Journal*, 41(5), 731-748.

25 Cunninghame, I., Vernon, L., & Pitman, T. (2020). To be seen and heard: Enhancing student engagement to support university aspirations and expectations for students from low socioeconomic status backgrounds. *British Educational Research Journal*, 46(6), 1487-1506.

# Methodology Statement

Results for this study are based on a survey of 962 students between grades five and 12 in Iowa, conducted Sept. 23-Nov. 18, 2024. Households were randomly selected to participate using a probability-based methodology via address-based sampling. Gallup secured permission for students to take the survey from a parent or guardian and asked parents/guardians a limited set of demographic questions for statistical purposes. Public, private and home school students were eligible to take the survey.

The primary outcomes of interest were composite variables generated from the survey responses. These variables include student agency, a measure of students' ability to exert control over their learning process; in-school engagement, a measure of engagement with in-school learning activities; out-of-school engagement, a measure of engagement with out-of-school learning activities; and, finally, an optimism index measuring students' confidence in their abilities and the belief that they will make a positive difference in the world.

The analysis is based on weighted survey responses from all students. Descriptive statistics are primarily based on weighted crosstab calculations for select demographic groups. Weighted correlations and weighted difference-in-means statistics were calculated for continuous and categorical variables, respectively. Significance testing was used to determine whether relationships among select variables were, or were not, due to chance.

Regression modeling was used to identify the marginal effect that important explanatory variables have on our outcomes of interest. A weighted Ordinary Least Squares (OLS) model was used to estimate the conditional effect that demographic and school-related outcomes have on these outcomes. The demographic control variables used in these models include binary variables for race/ethnicity and gender. The former is coded as 1 if a respondent is White and zero if not. The latter is coded as 1 if the respondent is male and zero if not. Also included is a categorical measure of school type (private, public or home school) and a continuous measure of grade level.

The margin of error for the full sample at a 95% confidence level is  $\pm 6.46$  percentage points. Substantively, this means that if the survey were conducted multiple times, we would expect the true population proportion to be within  $\pm 6.46$  percentage points of the estimate. The design effect for the study is 4.17.

**GALLUP®**

**World Headquarters**

The Gallup Building  
901 F Street, NW  
Washington, D.C. 20004

**t** +1.877.242.5587

**f** +1.888.500.8282

**[www.gallup.com](http://www.gallup.com)**