The Efficacy E-Book

Success Stories from Faculty and Students on Retention, Engagement, and More

2020
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**Introduction**  
An overview of this e-book from our founder and CEO

**Paradigm Shift**  
A brief overview of what Yellowdig is, why it exists, and how it works.

**Student Engagement**  
How instructors are using Yellowdig to get the most out of their students

**Retention**  
Some examples on ways universities were able to boost retention and help students most at-risk of dropping out

**Course Outcomes**  
See how learning institutions are improving student performance by getting them active on Yellowdig

**Student Satisfaction**  
Yellowdig is intuitively designed like social media. See the ways students reflect on their experience with Yellowdig compared to other LMSs

**Faculty Satisfaction**  
Learn about the ways Yellowdig increases the quality of learning while reducing faculty workload

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Some of the schools featured in the chapters listed above
Introduction

Now more than ever, learning institutions around the world are looking for creative ways to educate students with diverse needs. At Yellowdig, our technology is constantly evolving to help institutions meet these needs and create meaningful experiences. Our approach is unique because our platform focuses on driving the kind of student behavior most conducive to learning. Every element of Yellowdig is designed to build community, foster dialogue, and spark sincere engagement.

Instead of only relying on a few hours of “live” time during class lectures, Yellowdig encourages students to engage anytime, from anywhere—ensuring active and enthusiastic participation. We help schools maintain the magic of the classroom no matter where the classroom is.

We created this e-book to give readers an overview of the Yellowdig experience. Our community-driven approach has had a positive impact on student engagement, retention, course outcomes, student satisfaction, and faculty satisfaction at universities across the country.

In the coming pages, you’ll hear about Yellowdig from the people who have used it. Their campuses and student bodies all look different, but one thing they have in common is their successful use of Yellowdig in the pursuit of creating rich educational environments wherever needed.

Dig deeper with us!

Shaunak Roy
Founder & CEO

Yellowdig

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The Paradigm Shift

What is Yellowdig?

Yellowdig is a digital solution that impacts the entire student lifecycle and enables rich community experiences for all students. Yellowdig isn’t just a message board, it is an extension of the classroom. Yellowdig sparks meaningful conversations, tracks progress, and frees up faculty to do more of what they love.

Why are we shifting?

Students (and faculty) often regard online participation as a chore. That is because students are accustomed to doing the required posts to fulfill the graded requirement then forgetting about the forum. Yellowdig understands that real learning requires real interaction. Consumptive behaviors and comments, not posting, are most associated with better course outcomes, student satisfaction, and student persistence/retention. Yellowdig is designed to elicit the most productive behavior from students. They have a voice in online discussions and interact with their peers in ways that build real relationships.

What is the Conversation Ratio?

Defined as, “The total number of comments in the course divided by the total number of posts in the course,” this is one of the most important metrics faculty use to gauge the health of any online community, yet many non-Yellowdig online courses are not engineered to create these valuable interactions. Instead, many conventional communities that exist on an LMS are designed to get students to post content. This is better than nothing, but barely. When students participate in dialogues with one another they have to blend concepts and let new ideas take root—here is where the true learning occurs. Yellowdig was built as an environment where these kinds of interactions can flourish. Instructors can always consider the conversation ratio along with many other community health metrics to build stronger communities.

Why is Yellowdig educational?

This e-book presents several Yellowdig case studies done in collaboration with a wide range of educational institutions. Though the shape, size, and location of these colleges and universities vary considerably, the impact of Yellowdig was consistent. The platform improved student performance, decreased instructor workload, and increased retention. We want to tell some of these stories—examples of implementation and execution—in hopes that you will be inspired to use Yellowdig to create more meaningful learning environments at your institution.
Student
Engagement

Yellowdig resembles the social media platforms that college students are already so familiar with. Participants intuitively navigate the interface, and hit the ground running when it comes to interaction. However, unlike social media platforms, Yellowdig is gamified with student engagement and learning in mind. This reward system is not arbitrary. It has been designed to foster optimal student behavior in a way that dramatically improves interactions over the course of a class.

Administrators at Fort Hays State University wanted to analyze different student actions to try and understand how their students engaged with Yellowdig. The metrics chosen included individual student behaviors and interactions between multiple students.

Students were seeking new and interesting content on a daily basis and bringing it to the “classroom” with their own take on it. The integration between theory and practice came alive and students became more active learners.

The research performed by Fort Hays State University proved that when students are given more agency to participate in conversations, they enjoy using peer interaction software and it has a positive impact on the learning experience. Instructors found that the quality of posts and comments is far higher on Yellowdig than traditional message boards.

“Yellowdig is beautifully set up with points as a motivation system.”
- Dr. Andrew Feldstein, Fort Hays State University

Week 1

| +250 | Post with 40 Minimum Words - 06/10 02:09 PM EDT - (180 words) |
| +50  |👍 Received - 06/10 02:10 PM EDT |
| +50  |👏 Received - 06/10 02:14 PM EDT |
| +50  |👏 Received - 06/10 02:15 PM EDT |
| +0   |Comment with 20 Minimum Words - 06/10 02:25 PM EDT - (19 words) |
| +50  |👍 Received - 06/10 03:01 PM EDT |
By examining participation we see our relationship to ‘content’...as part of a shared practice and cultural belonging, not as a process of individual “internalization”.

- Jenkins and Ito, 2015, P. 4

Adam Munson of University of Florida’s Warrington College of Business set out to calibrate his grading to garner the largest amount of student engagement on Yellowdig. Given the size of Adam’s undergraduate courses (100 - 600 students), it was important that he found a solution that could scale without incurring too much admin overhead.

Over time he gave more points for comments instead of posts, which increased the important conversation ratio. He also started taking advantage of the comments-on-posts point type in Fall 2017, when that feature was added. These small point changes caused the amount of comments on a post to increase by 1,500% and resulted in the class exceeding its course goal by 23%.

When students can earn social points they create posts earlier to get a discussion going and engage other students. The social points Adam gave helped kick-start good conversations. Students no longer posted just to get a post done, but to spark real conversations.

Yellowdig communities that use all of our point categories have more engaged students who are more likely to post despite having already achieved the point goal.

“By examining participation we see our relationship to ‘content’...as part of a shared practice and cultural belonging, not as a process of individual “internalization”.”

- Jenkins and Ito, 2015, P. 4
Arizona State University wanted to use Yellowdig to create more interactive, engaging, and satisfying learning environments outside of the classroom. One of the things they wanted to know was how our kind of online experience would impact retention. Though having a better experience has benefits in its own right, it is important to know whether interacting and engaging translates to actual learning and student retention.

ASU discovered that students who participated on the Yellowdig platform were more likely to complete the course and get a higher overall grade. The majority of students using Yellowdig achieved their course goal for points, with the top 25% of point earners exceeding expectations by over 15%. Most Yellowdig behaviors were associated with better grade outcomes, particularly the extent to which a student participated compared to their classmates, which had a correlation of .416 with grade.

ASU also discovered that students who were not participating in Yellowdig assignments or engaging in fewer peer conversations were in danger of withdrawing. Yellowdig's prediction and notification system helps identify and engage higher-risk students. Yellowdig also creates visualizations of student networks to display where there are clear opportunities for intervention. This keeps more students enrolled and ensures higher graduation rates.

### Breakdown of Students with Yellowdig Behavior Data and Matching ASU Grades by Number and Percent

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Code</th>
<th>N</th>
<th>% of overall sample</th>
<th>% of matched sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Matched</td>
<td>n/a</td>
<td>26025</td>
<td>55.6</td>
<td>n/a</td>
</tr>
<tr>
<td>A+</td>
<td>11</td>
<td>3632</td>
<td>7.8</td>
<td>17.5</td>
</tr>
<tr>
<td>A</td>
<td>10</td>
<td>5000</td>
<td>10.7</td>
<td>24.1</td>
</tr>
<tr>
<td>A-</td>
<td>9</td>
<td>2563</td>
<td>5.5</td>
<td>12.3</td>
</tr>
<tr>
<td>B+</td>
<td>8</td>
<td>1621</td>
<td>3.5</td>
<td>7.8</td>
</tr>
<tr>
<td>B</td>
<td>7</td>
<td>2418</td>
<td>5.2</td>
<td>11.7</td>
</tr>
<tr>
<td>B-</td>
<td>6</td>
<td>1139</td>
<td>2.4</td>
<td>5.5</td>
</tr>
<tr>
<td>C+</td>
<td>5</td>
<td>732</td>
<td>1.6</td>
<td>3.5</td>
</tr>
<tr>
<td>C</td>
<td>4</td>
<td>1385</td>
<td>3.0</td>
<td>6.7</td>
</tr>
<tr>
<td>D</td>
<td>3</td>
<td>519</td>
<td>1.1</td>
<td>2.5</td>
</tr>
<tr>
<td>E</td>
<td>2</td>
<td>991</td>
<td>2.1</td>
<td>4.8</td>
</tr>
<tr>
<td>Withdrew</td>
<td>1</td>
<td>737</td>
<td>1.6</td>
<td>3.6</td>
</tr>
<tr>
<td>EN</td>
<td>n/a</td>
<td>1</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>I</td>
<td>n/a</td>
<td>16</td>
<td>0.0</td>
<td>0.1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>46779</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

### Graphs

- **Average Number of Posts Per Student**
- **Average Total Word Count Per Student**
When Capella University began using Yellowdig, they were committed to collecting and analyzing efficacy data from day one. This focus meant that over the course of Capella’s pilot year, the use of the Yellowdig platform was able to thoughtfully evolve to best suit the needs of their students. The pilot and implementation experience was a highly effective and rewarding partnership because every idea and adjustment was couched in real data. Capella successfully leveraged student and faculty feedback in tandem with a robust set of metrics. Their process allowed them to make educated leaps of faith by using evidence to guide decisions and feedback to adjust their approach.

With Yellowdig enabling new approaches to peer interaction and community building, the Capella team was able to swiftly create a positive impact on student retention. During the pilot they increased successful course completion by 11% and retention by 4%. This outcome was achieved without adversely affecting instructor workload or sacrificing the academic quality of student contributions.

“We saw higher gains in courses that did have Yellowdig than courses that did not have Yellowdig. So, we can say that it’s definitely contributing to our core success measures, to our registration measures, and I think it has so far been an overall win for us at Capella.”

-Jen DeGroote, Senior Evaluation Specialist in Academic Quality and Effectiveness.
As part of the same study mentioned earlier in the e-book, Arizona State University created a report based on Yellowdig data matched to 20,737 student grades primarily from online classes. The majority of students using Yellowdig achieved their course goal for points, with the top 25% of point earners exceeding expectations by over 15%.

When students participated more by commenting on more of their classmate’s content, they were more likely to get better grades. This is because they were actively engaging with a much wider set of course-related materials, while also collaborating with more of their peers and instructors.

This resulted in a rich educational journey. When measured, 69% of the 20,000+ students analyzed for this study met and exceeded the Yellowdig participation requirements, showing that they found intrinsic value in the community. Over the course of the semester, they continued using Yellowdig because they wanted to, not because they had to.

These correlations were even more pronounced in courses where the communities used Yellowdig’s recommended best practices. These same communities also tend to have higher levels of activity and more students gaining points above and beyond the requirement for a full participation grade. Students are not just posting to get points. They are listening and learning together by commenting on the material.

**Students who pass a course have an average Yellowdig grade of 82.8%, whereas failing students have an average Yellowdig grade of 29.36%**.

Posts lead to comments, comments lead to conversations, and conversations result in learning. It all results in better course outcomes. When a course has a healthy Yellowdig community, students go above and beyond, creating an amazing course experience.

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**Course Outcomes**

**Grade Improvement**

As part of the same study mentioned earlier in the e-book, Arizona State University created a report based on Yellowdig data matched to 20,737 student grades primarily from online classes. The majority of students using Yellowdig achieved their course goal for points, with the top 25% of point earners exceeding expectations by over 15%.

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At Bryan University, educational specialist Sean Preuss analyzed the relationships between Yellowdig and course grades, pass rates, and assignment submission rates.

First, the correlation between Yellowdig grade and course grade was stronger than the correlation between live session grades (in the synchronous programs) and course grades. Both carry the same or similar point values in courses. Live classes are traditionally viewed as the pinnacle of the weekly college experience, but Yellowdig had more influence on grades and could be argued to be more important to the student learning experience.

Even though students in these classes could still earn 80-95% as a final grade in courses if they completely ignored Yellowdig, the pass rates and course grade data showed that Yellowdig participation carried out-sized value. For example, statistically speaking, students earning more than three-quarters of the available Yellowdig points were essentially guaranteed to pass the course.

### Average Course Grade by Quartile of Yellowdig Performance

<table>
<thead>
<tr>
<th>Yellowdig Performance</th>
<th>Average Course Grade (Equivalent Letter Grade)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Quartile (76-100%)</td>
<td>91.77% (A-)</td>
</tr>
<tr>
<td>Second Quartile (51-75%)</td>
<td>71.24% (C-)</td>
</tr>
<tr>
<td>Third Quartile (26-50%)</td>
<td>52.23% (F)</td>
</tr>
<tr>
<td>Lowest Quartile (0-25%)</td>
<td>50.11% (F)</td>
</tr>
</tbody>
</table>

### Pass Rate by Quartile of Yellowdig Performance

<table>
<thead>
<tr>
<th>Yellowdig Performance</th>
<th>Pass Rate (passing students/total students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Quartile (76-100%)</td>
<td>98.5% (128/130)</td>
</tr>
<tr>
<td>Second Quartile (51-75%)</td>
<td>73.9% (17/23)</td>
</tr>
<tr>
<td>Third Quartile (26-50%)</td>
<td>50% (14/28)</td>
</tr>
<tr>
<td>Lowest Quartile (0-25%)</td>
<td>42.4% (14/33)</td>
</tr>
</tbody>
</table>
Student Satisfaction

A. McKinzie Sutter, professor at The University of Nebraska-Lincoln Department of Agronomy and Horticulture Distance Education Specialist, wanted to build her learning environment around Yellowdig.

She let the students learn from each other and discuss topics from the course that they were interested in. She served as the cheerleader when students got the right answer and the expert when the right answer eluded them.

This allowed the community to grow from within. Peers stepped up to help one another instead of relying on the instructor to give them the answer.

This strengthened classroom rapport among peers and built a sense of co-constructed learning, resulting in the kinds of meaningful connections that make for an amazing education.

By the end of the course, 90% of student respondents said they would prefer Yellowdig to real time two-hour Zoom lab sessions.

Student Feedback

“It allows all students to get their thoughts out, especially those who aren’t as comfortable in class. It also helps the students connect more with each other.”

“I have had other classes which required discussion boards but this system was SO much better. My goodness I cannot emphasize that enough. The way the points system works and what was required of a post made it so much more engaging. They weren’t these long drawn out required criterion type posts. It was recent articles and person’s takeaways — so crazy how much execution matters in an assignment holding actual learning value.”

90% of Students that would prefer Yellowdig to a two-hour Zoom lab session.

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Professor Lawrence Duke of Drexel University’s LeBow School of Business has never stopped innovating over the years he has used Yellowdig for his marketing courses.

When Professor Duke first started using Yellowdig he was transitioning from older discussion technologies and was somewhat worried that students would not produce posts if he rewarded comments, or that social points might inspire students to “game the system”. Many professors are nervous that social points will lead to popularity contests or unduly reward poor content.

But he became a believer as semester after semester he adopted more of Yellowdig’s best practices. Professor Duke instituted three major changes in the point settings. First, he enabled points for instructor accolades (formerly “badges”). Second, he doubled the value of receiving comments on posts relative to the point values for posts and comments. Third, he increased the word requirement for posts and decreased the word requirement for comments. This resulted in stronger engagement and more balanced content production.

Professor Duke collected feedback from his students at the end of every semester. Some highlights:

83% of students preferred or strongly preferred Yellowdig to Blackboard discussions; 15% were indifferent; and only one student preferred Blackboard discussions.

Students frequently characterized Yellowdig as “more interactive”, “better”, “easier”, “different”, “fun”, and “amazing.” Students compared Yellowdig to social media, praised the quality of the content, and reported enjoying reading others’ posts.

Professor Duke on how often he reads his Yellowdig feed:

“I'd say one to two hours a week. I actually wanted to spend more time because there was such good content, I just didn't have the time. So there's really good content there... And I think it's more enjoyable for the students too. I actually think they are reading what other people are doing...”
Professors across institutions usually see a reduction in their workloads as a result of using Yellowdig. Of course, some instructor participation is necessary, but if they spend too much time posting it has an adverse effect on participation.

At Capella University, faculty spent 2-3 hours on Yellowdig over the course of 4.5 days as opposed to 5-15 hours on Blackboard over the course of 6-7 days.

Instead of babysitting, they can spend more time on their own research and more pressing course matters. Read what a wide range of professors have had to say about using Yellowdig below.

“Yellowdig has been great so far — about half the class has maxed out their point totals for the week. I was not expecting this level of engagement and it’s the pleasantest [sic] of surprises.”
- Kelsey Boor, Teaching Fellow, Fordham University

“I have faculty who report that they get up every morning and do Yellowdig with their first cup of coffee because it always makes their day better.”
- Sara Drake, Faculty Chair of Undergraduate Psychology, Capella University

“[Yellowdig] helps engage students and simplifies tracking participation. Not constantly grading and trying to get participation frees me to spend more time being a good teacher... and it is a lot more fun.”
- Tawnya Means, Assistant Dean - Assistant Professor of Practice in Management, Director of the Teaching and Learning Center, University of Nebraska–Lincoln

“With tech I have to think about 600 students and how much I’ll have to support them for setup. If even 5% have an issue, I’m getting over 30 emails. If I’m using 4 things and there’s problems at that rate, I’m getting over 100 emails. That’s bad for them and really puts a dent in my time. So a big reason I keep going back to Yellowdig is that it is the easiest tech I’ve seen for students to pick up... they just ‘get it.’ They don’t have to deal with access codes and I don’t have to help with login issues. It’s a better experience for everyone and that helps me focus on teaching rather than tech support.”
- Adam Munson, Lecturer, University of Florida Warrington College of Business

“The discourse environment of Yellowdig has been everything I had hoped for. It is engaging. I don’t get posts that are repetitive. In a blackboard discussion forum, most posts do not get any comments on them. Students approach it less as a discussion than an individual assignment. I’ve counted this, and in the typical Blackboard forum only 5 or 6 percent of the posts will get a comment from other classmates. In Yellowdig, this is flipped. Almost all of the posts get some comments. There is real discussion going on.”
- Professor Jesse Ballenger, Associate Teaching Professor, Drexel University College of Nursing and Health Professions Health Administration

“Where Yellowdig is important to me in this process, in terms of KPIs and understanding the learning that’s occurring, is that it’s designed for an education setting, so you can get the data back in an educational context through an educational lens...It allows people to engage socially and collaboratively in a really meaningful way...We can then look at all the interaction data that’s occurring between people in that space and be able to assess the true effectiveness of the collaboration and sharing that’s going on in the learning process.”
- Kurt Hayes, Chief Learning Officer, Dignity Health Global Education
Technology has revolutionized so much of daily life, yet the structure of many university courses has barely changed from what it was a hundred years ago. Today’s learners live online and elements of their education should live there with them. We hope this e-book has given you a better idea about the role Yellowdig can play at any learning institution. We have already helped thousands of schools create communities for learners to share ideas and collaborate with one another. We aim to help many more colleges and universities provide an incredible education to students from a wide array of backgrounds, making the magic of learning more accessible to the world.

If you would like to partner with us, send an email to learnmore@yellowdig.com.

If you’d like to learn more, please visit us at yellowdig.com or use the links to the right to follow us on social media.

Thanks for reading,