



# Learning the Millennial Way

*K12 Education White Paper*

## Understanding the Millennial Generation

The increased use of interactive technologies—LMS solutions and 1:1 learning—is not just a trend in education; it is a way for the new generation of students to think.

The Millennial generation is the group of young people whose birth years range from 1980 to present. They are also referred to as Generation Y, the Digital Generation, the Internet Generation, N-Geners, the Nintendo Generation, and the Sunshine Generation. They are the first generation to grow up with computers in their homes.

Technology is a way of life for Millennials. Influences from the technology which they have been raised around have branched out to encapsulate all areas of the typical Millennial's life. They tend to prefer group activity in their learning environments, because their entire life has been based around social media. Therefore, one of the most effective ways for a Millennial to learn is to bounce ideas off their peers, so that a classroom discussion feels more like a group-text or instant message.

Keeping a Millennial student engaged in a classroom can be difficult, because they do not work well under "normal" lecture-based learning environments. It's not that they don't wish to learn. In fact, Millennials are fascinated by new technologies, and have a love of learning and education, as well as a desire to be challenged. However, they have a low tolerance for boredom, require high levels of stimulation, and therefore require more hands-on experiences in the classroom for knowledge to truly be processed. It is very difficult for a millennial to learn if they are forced to sit still and be "talked at".

They have grown up with all the information they ever wanted or needed at their fingertips. Therefore, what they are seeking from a classroom or lecture environment is a way to synthesize the knowledge they already have ,into real-life applications.

It is not surprising, then, that millennials are better able to remember images, graphs, and videos used in classrooms and lectures, in comparison to written text. In fact, when showed a series of 100 images, a Millennial student remembered 90% of the images. A Gen Xer or Baby Boomer only remembered 60% of the images, and "digital dinosaurs" only remembered 10% of the images. This proves that the way students learn these days has drastically changed from the old "listen and take notes" method of the past.

The point of the matter is, having a stimulating and more hands-on learning environment for millennials is crucial. They have spent their entire lives doing four or five things at one time. Their minds work better by parallel processing multiple actions at once. It seems a daunting task to change the entire process of learning, which has been so deeply engrained in our habits.

However, all one must do is think like a millennial to be a more effective educator for this generation. The implementation of 1:1 learning and LMS solutions in schools today are taking the necessary steps to work with the Millennial generation toward a brighter future.

## The Case for 1:1 Learning

It has been a little more than two decades since the first 1:1 initiative; one technology device to every student, began. In that time, thousands of schools and millions of students have been involved in 1:1 pilots or full-scale implementations. Much has been written about the benefits of 1:1 and its potential to create a revolution in when, where, what, and how students learn. However, to effectively make a change in modern learning, we must do more than just provide all students with their own personal computers; we must explore ways in which 1:1 makes it possible to profoundly impact the learning opportunities for young people.

A 1:1 initiative can help lay the foundation on which new learning dynamics can be built. It can create a platform for reform, for re-imagining what school could be, and for building a more authentic, relevant and worthwhile learning environment for young people in the 21<sup>st</sup> century. But to make this revolution in learning succeed, there are some essentials that must be followed.

Looking back over the last few decades, there have been many pockets of exceptional work, usually driven by innovative teachers who realized that modern-day students weren't able to absorb information from textbooks and lectures. There are positives and negatives to operating a technology-based classroom, which is why it is pertinent that attempts at 1:1 learning must follow certain rules to be successful.

When researching and analyzing the experiences of these primitive 1:1 initiatives, it became clear that the most successful initiatives all had one characteristic in common: they were above all concerned with the learning content, not merely the use of technological hardware in the classroom. The content that students are using on the device must be relevant to classroom lessons, and give students the capabilities to interact and respond. When teaching a classroom of millennials, this practice is highly important, as studies show that millennials have a desire to be engaged in the classroom, not lectured at. Also, user-interactive response questions, activities, quizzes, and tests utilize a student's higher level thinking skills.

One-to-one initiatives are most successful when they are presented in a flipped classroom learning method. Teachers can assign online lessons and videos for students to complete at home, then use their class time for reinforcement activities and providing students with individualized help. Interactive questions and multimedia make lessons more engaging and effective than printed materials. This helps students learn the fundamentals faster, so teachers can spend more time on creative activities. The flipped classroom method has only proven to be successful in 1:1 learning environments.

Now that 1:1 learning is becoming a more common practice, proof of its benefits is abundant. A study from KIPP Academy in Houston, Texas showed the percentage of students who rated either proficient or advanced on standardized testing was 49% higher in the flipped classrooms using iPads than in traditional classrooms that did not use iPads. Students are fans of this innovative learning model as well. Six out of ten college students and high school seniors agree that tablets help students study more efficiently and perform better in classes.

The advent of 1:1 initiatives, as well as anytime, anywhere learning will redefine the modern classroom, creating an education revolution. Be ahead of the trend, utilize all of the qualities within Jupiter iO's LMS solution. With Jupiter iO online lessons, teachers can create their own tutorials, as well as submit audio and video to supplement their lesson plans, so that students may receive the utmost benefits from their school's 1:1 initiative.

## The History of Learning Management Systems

Learning Management Systems are a crucial element to the technology-based classroom. They provide electronic learning materials to students, can administer exams and record scores, and also allow for communication between students and teachers. For those who may fear the effectiveness of taking traditional learning to a technological level, it is important to understand just how long Learning Management Systems, in some form or fashion, have been guiding education out of the classroom and to students through technology.

The history of the LMS began in 1924, when Sidney Pressey invented the first teaching machine. It resembled a typewriter and administered multiple choice questions to students. Similarly to this, in 1929 M.E. LaZerte invented the "problem cylinder", that would follow the solution steps a student took to solve a particular problem.

Quite similar to the Learning Management Systems of today, PLATO, developed at the University of Illinois at Urbana-Champaign in 1960, allowed different user types to interact, including instructors who could create course material, and students could complete the material online. In 1982 TCP/IP was introduced, thus giving rise to the World Wide Web. One year later, MIT introduced "Project Athena", a five-year initiative to discover innovative methods of using technology for teaching.

The first LMS was introduced in 1990, and many others followed, each one offering a new feature or update to make technology in the classroom more accessible. Throughout the years, LMS systems have become increasingly sophisticated and user-friendly, much like the intuitive design of Jupiter iO's LMS.

Currently, Jupiter iO is the only fully-integrated LMS-Gradebook-SIS-Analytics solution on the market, everything you need to bring your classroom into the 21<sup>st</sup> century.

## The Benefits of Implementing an LMS

It is difficult to imagine our lives without modern technological advances, so why should we deprive our schools of these modern necessities? It is of the utmost importance that students receive training in implementing these technologies into their everyday lives, and the best way to do that is by infusing technology into the classroom. While it is easy to see the need for technology-based learning, schools may often fear that it is not a practical option. However, the benefits, both financially and educationally, of technology-based learning are numerous.

One of the most important aspects of technology-based learning is that it can be less costly. Initial costs of buying devices and new computers may seem daunting, but when compared to the cost of paper materials, ink cartridges, printers, and various other “school supplies”, which must continuously be replaced, the true cost of integrating technology into the classroom is actually quite low. For instance, with 1:1 learning initiatives, instead of teachers needing to print off an individual worksheet for each student, students can access the worksheet virtually on an LMS. Also, instead of having to replace an entire classroom set of textbooks as new editions are produced, the significantly cheaper e-book version can be uploaded to a student’s device.

Technology-based learning has the potential to promote greater comprehension and retention, particularly for complex materials, because it allows students the opportunity for hands-on manipulation of course materials, as well as the use of simulations and game-playing, making learning fun. Utilizing the internet, students can view all types of content such as video, pictures, and music. They can also interact with this content by altering it and creating new content, which they can share with their peers. Technology-based learning fosters this greater accessibility to learning by offering anytime, anywhere delivery of materials and ideas amongst instructors and students.

Anywhere, anytime learning, as well as 1:1 initiatives, which technology-based learning makes possible, have the advantage of being self-paced, allowing those students who are “fast learners” to move on to the new topics quickly, and allowing those who are struggling to take their time, so that they may fully comprehend the topic, and receive instructor feedback as necessary. This new educational practice also offers a wide range of learning modes and an opportunity to track progress and measure outcomes as a seamless part of learning. Students may receive instant grade feedback, so that they are instantaneously aware of which parts of a particular subject they struggle with most.

Technology-based learning is necessary for any institution that wishes for its students to stay competitive in the modern world. Give them the advantage they need.

Try Jupiter iO today, and use the LMS feature so you can bring your classroom to the digital age.