

**Tired of Competing with the
Latest Video Game?
Strategies to Promote Engagement &
Integrate Technology**

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Abstract:

Lack of engagement is a major roadblock to successful learning in many classrooms. It is our job as educators to re-vitalize and re-engage students in new innovative ways and be dedicated to the idea that technology, games, and toys can bring about a positive change garnering student interest and engagement in the classroom. Lack of engagement is problematic as our students are falling behind in this global village. Teachers are challenged with the task of engaging students in this changing world. Through the use the integration of technology and the utilization of games, teachers can engage and motivate students to be successful in the world of academia. Teachers can utilize educational websites and games as a way to “tap into students’ inherent interest” (Rowen, 2005). Teachers can utilize the following educational websites and games such as: Spelling City, World Maths Day, Arcademic Skill Builders, Dice Wars, Word Builder, Bingo, and “Who Wants to Be a Champion?” to engage and motivate students in the 21st century classroom.

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Born in Chicago, Illinois, Nishat holds several degrees and memberships to professional organizations. She earned a BS in Microbiology from California State University – Los Angeles in Los Angeles, CA in 2005. She, then, went on to earn a Masters in Clinical Microbiology from The University of Nottingham in Nottingham, UK in 2006. Nishat has been teaching full-time for the last six years and part-time since 2000. Nishat is a member of the National Science Teachers’ Association, the California Science Teachers’ Association, the Los Angeles City Teachers’ of Mathematics Association, and the California Math Council. Nishat is a dedicated, enthusiastic, hard-working 4th, 5th, & 6th grade teacher at New Horizon School – Los Angeles. In addition to her teaching role, she is the Director of Curriculum & Student Affairs at New Horizon School – Los Angeles, Islamic Center of Southern California Sunday School Office Manager, past ISNA Education Forum presenter, past ALDEEN Foundation presenter, past West Coast ISNA Education Forum presenter, WASC Steering Committee Chair at New Horizon School – Los Angeles, organizes several of the school’s social events, school’s competitions, the Annual Interschool Spelling Bee, Who Wants to Be a Champion?, and publishes *The Weekly Bulletin*, the school’s only weekly communication with the parents and community.

Tired of Competing with the Latest Video Game? Strategies to Promote Engagement & Integrate Technology

Have you ever stood at the front of your class, looked out at the bright shining eyes of your students listening to your riveting lesson, and suddenly realized that they are a million miles away? Two things usually happen at this point: one, you stop mid-sentence and demand students pay attention, maybe ask a question or two, you sadly continue your lesson as there are only a few minutes left and you want to complete the lesson – knowing full well that you'll have to re-teach the entire thing tomorrow! Well, don't worry – we've all been there. The one thing that these two scenarios have in common is that the students aren't engaged.

As referred to in a previous paper, the toughest challenge facing teachers (today) remains, engaging and motivating students (Davis, 2008). After all we all know that “engaging students in learning is principally the responsibility of the teacher” (Smith, et. al. 2005). Disengagement and lack of motivation is a hindrance to the learning process and to the conduciveness of the classroom dynamic because it disengages students from their real world experiences (Heafner, 2004). Disengagement revolves around minimal participation, motivation and misbehavior amongst students as well as limited group interaction. Engagement is roughly defined as a student's “willingness, need, desire and compulsion to participate in, and be successful in, the learning process,” (Bomia et. al. 1997).

There are three major reasons for lack of student engagement or motivation in the classroom including not finding the material useful, thinking they will not understand the material, and believing that they are not capable of learning the material. The first reason is especially detrimental to the engagement of students because it is a clear reflection of students not valuing the content. It is a facet of the student lacking extrinsic motivation. The second and third major reasons are a combination of students lacking intrinsic and extrinsic motivation. “Students are more likely to want to learn when they appreciate the value of classroom activities, and when they believe that they will succeed if they apply reasonable effort” (Sasson, 2007). Therefore, “student motivation to learn is an acquired competence developed through general experiences but stimulated most directly through modelling, communication of expectations, and direct instruction or socialization by significant others – especially teachers and parents” (Brophy, 1987). Weaker students have become accustomed to failure, which turns them off and disengages them from the learning process. “Students who are bored, restless, disruptive, and disengaged in the short term have clearly documented negative impacts on students, teachers, schools, and communities,” (Parsons and Taylor, 2011).

There are many different types/categories of engagement, depending on what literature is referenced. A few of the common types/categories of engagement are academic, behavioral, and social. Academic engagement refers to student participation in school tasks. Behavioral engagement refers to student

attendance, participation in extra-curricular activities and other non-academic school activities. Social engagement refers to students' sense of belonging, relationships, perception of capacity for success, sense of competence, motivation, interest, need for choice, and autonomy. Student engagement is key to the success of a school, the success of the student presently and in the future, and to the success of the nation, if not the world.

Engagement is tantamount to transforming and improving education. The truth of the matter is that students are changing – they learn differently than the students of the past. As students and times have changed, education has not changed. “The purpose for education has changed because the world has changed; and, as the world has changed students have changed with it; however, education has not. An increasing gap exists between what students want and need and what education has provided,” (Parsons and Taylor, 2011). As a nation and especially a labor market, employers are seeking employees that have more than just knowledge – today's employees must be critical thinkers, problem-solvers, effective communicators, able to adapt to various situations, able to collaborate with others, technologically savvy, and have positive attitudes. Engagement is encourages students to enhance these attributes.

The question remains, how do we improve student engagement, now that a trajectory has been set, a call of action given? In reading about engagement, it can be clear that to engage students in learning, new educational curriculum and activities must include: interaction, exploration, relevancy, multimedia and technology, engaging and challenging instruction, and authentic assessment (Parsons and Taylor, 2011). Interaction revolves around the idea that relationships and interactions are integral parts of positive student engagement. Exploration refers to providing students with a more hands-on approach to finding solutions and answers. Relevancy brings back the “why do I need to know this?” idea. Students need to feel that what they are learning is truly relevant to their lives. The idea that they this knowledge is applicable, not just theoretical or text-oriented. Engaging and Challenging Instruction refers to the idea that how we teach is just as important as what we teach and that they must both be changed to engage students in a safe learning environment. Multimedia and Technology is an interesting facet of engagement. It specifically refers to the call for teachers to have new tools in their classroom toolbox. Multimedia and technology call for facilitation of deep research and learning and building relationships among learners.

Knowing this, there are certain techniques, activities, and technological resources teachers can use to get their students back in the game. It is essential for students to experience success and it is especially essential for weaker students to experience success. When deciding how to engage students, it is imperative that three factors be taken into account. Student autonomy versus teacher control, relevancy and optimal challenge to the student, and the involvement of the teacher are all-important factors in the successful motivation

and engagement of students. Teachers must provide a supportive learning environment, appropriately challenging activities, clearly presented learning expectations, and an optimal use of motivational strategies (Robb, 2001, Part 2). Using engagement strategies are powerful teaching tools because they focus children on learning, support learning specific skills and concepts, and provide positive associations with learning (Jablon and Wilkinson, 2006).

Among the many various strategies to engage students in the classroom to increase student learning and in turn, create a brighter tomorrow for everyone, for use with whole groups, small groups, and individual learners are: making lectures more interactive, the jigsaw technique, the gallery walk, effective discussion, concept sketches, debates, role play, simulations, brainstorming, think-pair-share, group work, subject summaries, games, minute papers, independent study, and using technology to name a few. All of these strategies have a few common elements. These elements are that they foster active investigation, promote group interaction, encourage collaboration, allow for choice, include humor, support mastery, and nurture independent thinking.

Games and technological resources are essential to engaging students. Technology promotes literacy, higher-order critical thinking skills, while incorporating autonomy. Video games, ipods, DVDs, cds, laptops / tablets, e-mail, and instant messaging are more a part of student life then ever before and teachers have “to tap into students’ inherent interest in these methods” (Rowen, 2005). Through the use of the internet, smart boards, the overhead projector, document cameras, video streaming, and other educational technologies teachers open new avenues of learning involving more students and integrating different learning styles including auditory, kinaesthetic, and visual learners. Technology has the potential to engage students at higher levels due to perceptions that they can be successful (Guha and Leonard, 2002). Educational websites often provide students with tutoring and cues to guide students through difficult problems, a sort of extra scaffolding. Technology allows teachers to adapt tasks to students’ interests, include fantasy or simulation elements or incorporate game-like features, and provide opportunities for peer interaction in their lessons. After visiting many websites, the Appendix contains a compiled list of the best strategies to be implemented for elementary students.

One of the best spelling websites for students I have found is the Spelling City website. Spelling City, as the name suggests is a website geared towards helping students learn and practice their spelling. Spelling City is a free website that teachers may register to and to which they may post their spelling words. Students can access these lists via two avenues – the teacher’s name or the spelling list title. The website’s address is www.spellingcity.com. Spelling City features a wide variety of student friendly activities. Posting lists is also quite an easy task. Teachers can register and create many different word lists, which all get saved to the teacher’s account. Students can then choose from the many features to learn their spelling words. Students can utilize the games feature, the

“teach me” feature, or the “test me” feature. The “teach me” feature is a spelling test type practice where students can hear the pronunciation and the definition of a word. This especially helps English Language Learners develop their vocabulary.

Another excellent student-friendly, website examined was www.arcademicskillbuilders.com. Arcademic Skill Builders is a compilation of educational games for students. There are games for language arts and for math. Students enjoy playing these games because they are very similar to video games including racing and space games. Students are allowed to play each other, to host their own races and to invite others or join others games. This website also features peer-peer interaction as a component of extrinsic motivation. The beauty of this website is that the peer interaction is optional. Students have the option to play by themselves versus the computer, until they feel comfortable playing other players. When taken to the computer lab, something happens to students. They sit in front of the computer and exude self-confidence in their abilities, not only to work with the technology but also to master the content and successfully complete the task (Heafner, 2004). The magic of technology is enough for students to move past their self-worth perceptions and open themselves up to the possibility of skill and content mastery. This website is an exceptional tool to motivate students and re-engage them in the learning process.

Another incredible math skills building website is www.sumdog.com. Sumdog is a math review / practice website where students play games to review and practice skills they’ve previously learned. This is a great technological resource for students, as it utilizes the components of fantasy, peer – peer interaction, and is a game with clear extrinsic facets. Students can practice their addition, subtraction, multiplication, and division facts, along with many other math concepts. This website can be used to prepare students for high stakes tests, especially those standardized timed tests, and to engage and motivate students to improve their own scores. In my experience with this website, students at all levels enjoy it as it caters the levels of activity to each student’s individual ability levels and students can move through the levels at their own pace. Once the teacher registers their students, the teacher can set-up tasks for various groups in their classrooms, can look at everyone’s individual and group results, and see who logged on for how long and how many questions they answered in that time. This provides teachers a way to monitor student progress, similar to World Maths Day.

These websites utilize games as a way to motivate and engage students. Games played off screen also work just as well to motivate and engage students by eliciting healthy competition, peer interaction, and encouraging teamwork. A few games I utilize on a regular basis include Dice Wars, Word Builder, Bingo, and “Who Wants to be a Champion?” to name a few.

Dice Wars can be used to review a number of mathematic skills such as addition, subtraction, multiplication, division, fractions, and exponents. Dice Wars includes games played by dividing the class into two teams. The teacher or moderator roles a set of dice and then tells the teams the two numbers. The teacher or moderator also gives the students an operation to use with these numbers. For instance, in my class I may roll a five and a seven. Then I tell my students to multiply. Each student has a communicator, a dry-erase marker, and an eraser. Students solve the problem on the play side of their communicator, turn it over, recap their marker, and position their marker back at attention to signify their completion of the problem. The first complete team to be at attention has their boards checked and if all correct, score the point in that round. In my classroom each game is played to 20 points and the winning team gets a small prize. Prizes can include stickers, points, play money, and extra playtime, etcetera. This game works to motivate students both intrinsically and extrinsically. Students want to win and students appreciate the reward. The level of difficulty can be varied depending on the type of dice used. Double dice, icosahedral, and triple dice from 1-20 can be used to vary the level of the questions.

Another game I utilize, specifically to improve student vocabulary is Word Builder. Somewhat like Scrabble, I give students a set of letters and students must make as many words with those letters they can. This is another teamwork game. Students work together in teams to create their words. This game may also be played individually. This is another easy game to prepare and can be varied to work with all levels. With my stronger students, I require longer, more complex words. With my weaker students and English Language Learners, I encourage them to create many different words of varying lengths and complexities. Students enjoy this because again we can make it a competition and share out at the end of the session. Students then write down all the words that they and their peers created out of the original set of letters. This game can vary by the set of letters given and whether a time limit is set.

Bingo is another especially engaging game to review certain facts. Bingo can be played in math, language arts, science, and social studies. It allows for the utilization of vocabulary. It requires a little more work for the teacher to prepare, but is an exceptionally effective review game. The way it works is that students are given a game board with answers in the columns and rows, as well as counters. Depending on the subject these answers may be equations, numbers, definitions, or words. The teacher or moderator has a set of cards with the answers, definitions, or words on them. The teacher or moderator shuffles the cards, picks one at random, and tells the students. The students check their game boards and if they have the answer, they cover that square with a counter. The first student to get a Bingo wins. There are many different ways students can get Bingo. Students can get all four corners for Four Corner Bingo. They can get a diagonal for Diagonal Bingo. They can get a row for Row Bingo or they can get a column for traditional Bingo. This is another fun utilization of games to review a

number of various subject areas. Bingo can also serve as a mixed review by preparing one game board with each column serving a different subject area.

“Who Wants to Be a Champion?” is a game show style review game, quite similar to its ABC counterpart game show “Who Wants to Be a Millionaire?” This requires teachers to prepare more extensively and requires a lot more time to be played, however it is an exciting experience. This is an individual game and each participant is given a touch light to be used as a buzzer. Students are shown the question and the answer choices. They are then given the opportunity to touch in for the opportunity to answer the question. The first student, who touches in, gets the chance to answer it. If the answer is correct the student gets five points. This game can be played to a certain point total or it can be played to a certain number of questions. This game, as the actual version, utilizes lifelines. In this version we use, ask the teacher and fifty/fifty. They work the same way that ask the audience and fifty/fifty work on the game show. The difference is that each student has the opportunity to earn points for themselves and therefore is more extrinsically motivated to do well.

There are many advantages of technology and games to engage students in the elementary classroom. It has become apparent that the world is moving into the 21st century and the technological age where everything from pumping gas, buying grocery, and even earning a degree are all utilizing new technology and are becoming automated, we need to prepare our students to enter this new world fully equipped to meet its challenges and its needs. Teachers can now utilize educational websites and games to engage and motivate students. Another positive result of utilizing this new medium is the enhancement of students’ technological literacy. Websites can be utilized to engage students in the learning process. As students spend more time with various media they need to be assessed using various media. This will give educators a more complete picture of what students actually know.

Appendix:

Strategies to Implement Engagement

1. KWL Charts
2. Think, Pair, Share
3. Dramatic Touch
4. Games
5. Minute Papers
6. Writing Activities
7. Brainstorming
8. Debates
9. Group Work
10. Use of technology
11. Simulations / Role-Play
12. Jigsaw Technique
13. Gallery Walk
14. Concept Sketches
15. Debates
16. Interactive Lectures
17. Lab Work
18. Cooking Projects

Educational Websites

1. www.sumdog.com
2. www.SpellingCity.com
3. www.worldmathsday.com
4. www.arcademicskillbuilders.com
5. www.uboost.com
6. www.pbskids.com
7. www.vmathlive.com

Educational Games and Activities

1. Dice Wars
2. Word Builders
3. Bingo
4. "Who Wants to Be a Champion?"
5. Jeopardy
6. Classification Relays
7. Act Out

For more information on any of these websites, games, or activities feel free to e-mail me at nalikhhan@newhorizonla.org.

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