

Board Games in Math Class

Andrew Sundin
Sam Houston State University—Texas

“Math is boring!”, “Mr., I don’t get it!”, “Why do we even have to learn this anyways?” These are all comments that many math teachers, especially at the junior high level, have heard countless times in their career. Sitting in a math classroom as a student, I honestly never had any of these thoughts run through my head because I always really enjoyed the subject. When I heard these comments during my time as a substitute in College Station ISD, it was eye opening. Of course, for me, when the time came to choose what I would like to teach, math was always at the top of my list. I loved the subject, but once I started getting into the classroom, I realized that the boring way that really got me going in school only resonated with about one third of the students in my classroom, if that at times. I thought long and hard on what I could do to get the students back and engaged in the class and remembered an assignment I had to lead during my time spent as a substitute. The assignment was creating a board game. I looked at my sub notes again to see if I had read it correctly when I first saw this, but it was true. I had no idea how I was expected to do this activity that day, much less lead the activity so I was sweating bullets when the first bell rang that day. I was in a fifth-grade language arts classroom that day as well so I was totally out of my element. The day passed and I will say that it was honestly one of the most fun days I had ever had in a classroom as a student, substitute, or teacher. The students had done an assignment

like this in the past so as soon as I mentioned it they all lit up and went right to work. All I had to do was give them a topic and the race was on. After this memory had popped back into my head I decided to give it a try in an assignment given to me in my Literacy Methods semester at Sam Houston State University. The assignment was to create some way of teaching math to students that would incorporate and foster literacy and reading in the subject as well. At first choosing to create a board game seemed odd to many of my classmate because it just seemed like I was dodging the assignment and creating something fun instead. However, I knew it would work because I got the idea from my past experiences in and ELAR classroom. Once I got the ball rolling everyone soon realized that the board game would work, and it honestly has endless possibilities.

Creating the board game with one student or the whole classroom is all kind of the same. You need a few students to help design and create the board itself. As inspiration, the class as a whole just looked at different board games they had played in their past. Games such as Monopoly, Sorry, and the Game of Life were a few the students seemed to really use as influences. They noticed that the games had different spaces such as move ahead, pass go, go to jail, and so on. The student moved on to creating their boards. Including the different spaces they had ob-

served in the games they knew really seemed to make them feel like they were actually taking part in creating a real-life board game. The hardest part about this whole experience was getting one set of rules for all of the games. I myself created these rules, so the students could rotate from game to game and kind of know how the rules of the game worked. Keeping them simple, short, and sweet was all I went for.

Now once the boards are made in any design the student deems fit and the rules are set, you would think that the game could start. However, some of you are still wondering how any of this might have to do with anything about math at all, well get ready for it cause the magic is about to start happening. In these board games, the students must create the different cards that will be placed on the board. When it's a student's turn in the game they will pick a card, and answer the question. If they answer correctly, they roll the dice and move the amount of spaces shown. If they answer incorrectly they just have to stay put and wait for their next turn. So now that you kind of have a feel of how the game works, back to the creation of the most important part of the game: the cards. All the other stuff to this point has kind of been bells and whistles to make the board game seem and look real and fun. The cards are created by the students around one sole topic or TEK that you feel the students should work on. The game I created with my student was based on linear equations and solving and graphing them. The students love the freedom that they receive in this activity and often try to stump their fellow students. What they don't realize is by them creating the cards and answers to these cards, they are reading, writing, and learning math all at the same time. This activity also fosters a feeling of ownership to the students because if they are really proud of the game or question

they created they feel like they have accomplished something great. The example that will be shown in the pictures below is of the first board and card set I created with a few struggling students. I took the example for my assignment and also gave it a theme as a whole. My theme for the board game was Superheroes and the students really seemed to like that. I also took the theme one step further and bought different superhero player pieces that are what the students use to move along the board.

Creating the cards and having the students answer these cards is where the learning all takes place, but the bells and whistles you add to make it feel more like a real board game is what makes drive home the success of the activity. Some classes may not need all these bells and whistles, though. The first time I did this activity the kids literally grabbed a big piece of butcher paper and had their boards and game pieces made in all of 5 minutes. Some students will need that extra realistic style game to get them involved with this. The overall goal of this activity since my students seemed to really enjoy, it is to have a whole set of boards and multiple sets of cards to where I can come in and just say today is board game review day. Then, the students can just have a nice board game review session day. The dream will be a reality one day.

Finally I promised that this would work with multiple different subjects in a school setting and it one hundred percent does. I've seen it work in a math classroom and an English classroom, so history and science are next. All it takes is that the children create two to three cards per topic and you can get a full set of cards in one class period. Whether the topic be the American Revolution, anatomy of the human body, adding and

subtracting fractions, or punctuation at the end of sentences, all of these can be covered using the same board game. You just need different sets of cards for the students to use to play the game. My first experience with this board game style activity was in a fourth grade ELAR classroom, and my math based experience was in a seventh-grade classroom. The results were pretty similar in both instances. If you are looking for something different to possibly set you apart from the normal flow of teaching, give this a try and see how it works for you. Also it never hurts to have a little prize for the winner of each individual game. If you are struggling with students who don't want to participate, this has done the trick so far for me. You know your individual students though. Whatever makes them

get going. use that as a reward or prize for winning and participating in the games. I will have a full set of board games in my future classroom because of a substitute lesson plan I once received. I hope this article will help at least get your mind going about creative ideas. Who knows, maybe you really love this one and will have a set of board games and cards all your own.

Author's Biography

Andrew Sundin is a senior mathematics major pursuing a teaching certification in grades 4-8. Andrew Sundin can be reached at acs067@shsu.edu.

Appendix 1

