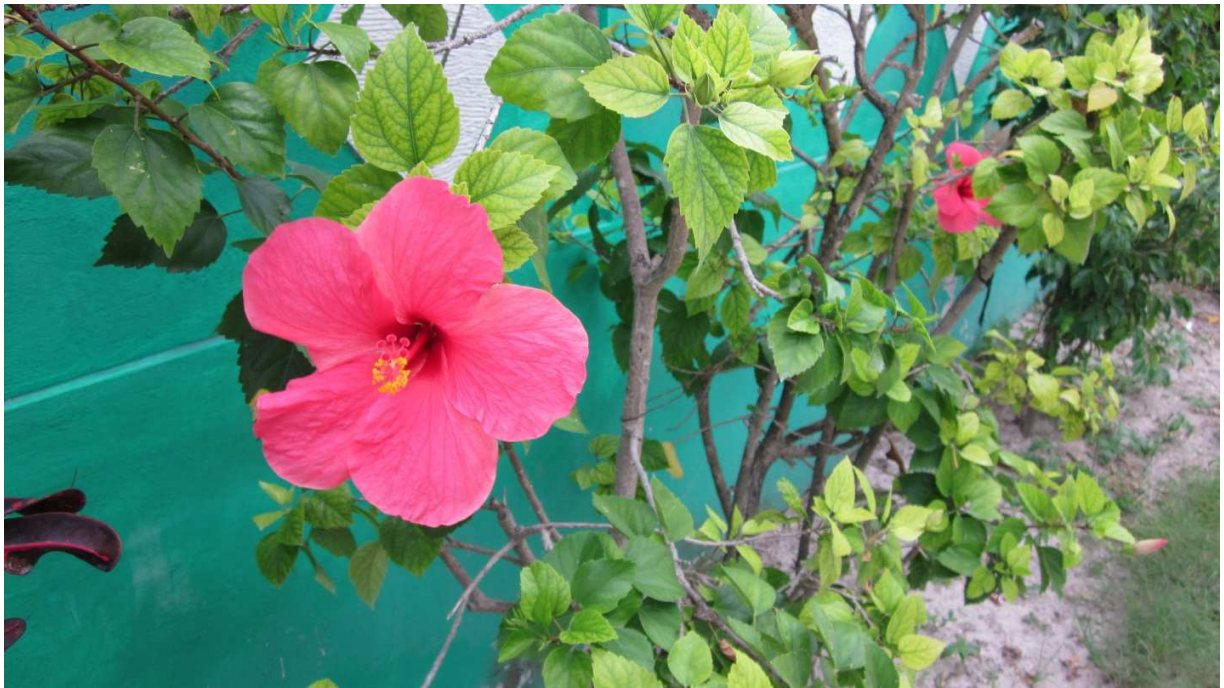


Interpretation of Quiz Data

By Linda L. Tavares



Photograph by Linda Tavares

Introduction

The mechanism for determining success on the 25 question quizzes was to have students practice their multiplication facts using technology as a learning solution for poor performance on quizzes, tests and class work. Six students who were found to be most struggling and most in need of remediation took part in the technology intervention program which was designed to have students practice their multiplication facts using online resources including flash cards on power point, multiplication quizzes, interactive lessons and engaging activities such as games. Prior to beginning the technology intervention these students took one multiplication quiz per week. The difference between their performance on these quizzes and the ones taken after the intervention is nothing short of remarkable.

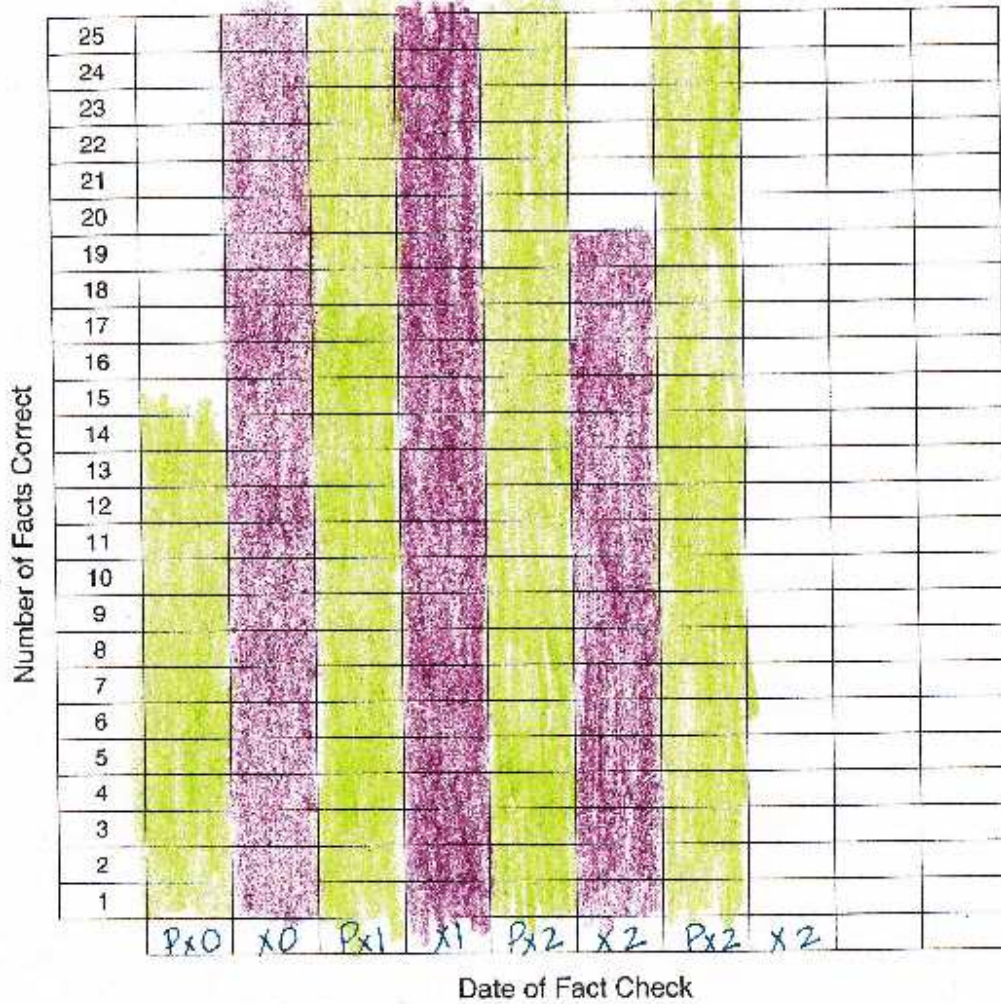
Student SW

Prior to the intervention program, student SW took seven multiplication quizzes and passed zero. Her successful completion of quizzes was 0 out of 7 attempts with a success rate of 0%. SW has a documented learning disability, physical disabilities and is confined to a wheelchair. Computer stations were modified to allow extra room for her chair. Before the start of the technology intervention, SW made a prediction of her success on her first quiz on the facts of zero. She predicted out of 25 questions she would answer 14 correctly. After four days of intervention (75 minutes a week) SW took a quiz on the facts of zero and scored with 100% accuracy. These results seemed to bolster her confidence because her next prediction for the multiplication facts of 1 showed she would get all 25 questions correct. After four days of taking part in the technology intervention program, she scored 100% on the quiz for the facts of 1. She again predicted she would answer all 25 questions correct on her multiplication quiz for the facts of 2. After 75 total minutes of practice, SW scored only 19 correct with 76% accuracy. Since she did not reach the targeted 90% accuracy, SW will take this quiz again. She has predicted she will then score 100% on the next quiz for facts of 2. Prior to the technology intervention solution, student SW passed 0 out of 7 quizzes with a 0% success rate. After the intervention solution, SW passed 2 out of the 3 quizzes taken indicated a success rate of 67%.


Given the facts that this student has a true learning disability and has not passed any quizzes on the seven attempts prior to the intervention, these results are remarkable. Not only has she improved her knowledge and made gains in her ability to accurately multiply, she demonstrates an increase in her confidence level by continuing to predict she will succeed after the implementation of the technology intervention. Examining this data proves this technology solution has had a positive impact on this student's learning and motivation to learn.

Name: _____

My Fact Check Progress Graph



 Prediction

 Number of answers correct

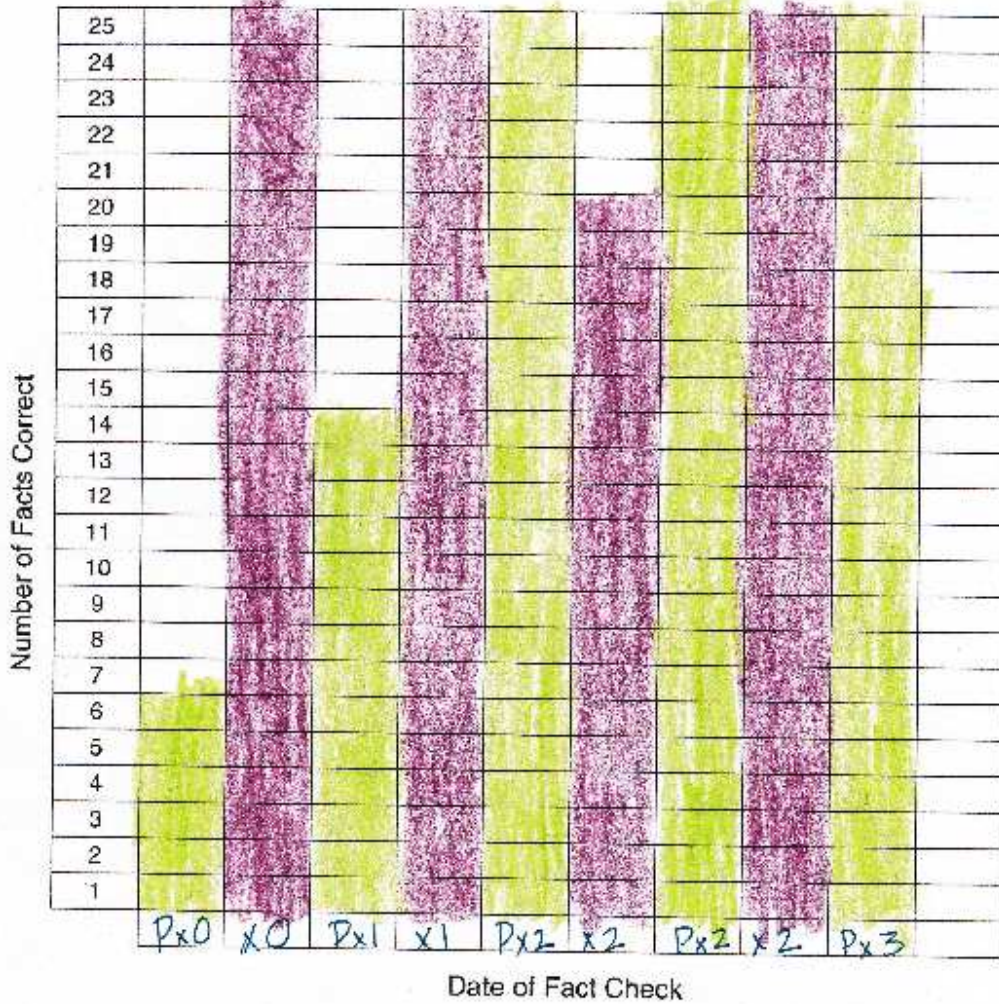
Student LW

Prior to the intervention program, student LW took seven multiplication quizzes and passed zero. His successful completion of quizzes was 0 out of 7 attempts with a success rate of 0%. This student demonstrated little interest in learning his multiplication facts. After each quiz he would comment that he didn't care about the quizzes because he could never learn his multiplication facts. He said, "I practiced at home with flash cards and I don't know them." He had no confidence in his ability to answer multiplication questions correctly, even for the facts of 0. When asked to predict his success on the first quiz for the facts of 0, he predicted he would get only 6 correct.

After the 75 minutes of technology intervention in week one, student LW scored 100% on the quiz. He was immediately motivated and wanted to get right back onto the computer for more practice. When asked to make a prediction for his success on his next quiz, he predicted he would get 14 out of the 25 correct. After 75 minutes of technology intervention he scored 100% of his facts of 1 quiz. His next prediction shows a boost in his confidence because he predicted 100% accuracy on the next quiz for the facts of 2. After the 75 minutes of technology intervention, he scored 20 out of 25 correct. He made a careless error in that while he marked $2 \times 5 = 10$, he then marked $5 \times 2 = 7$. He seemed to forget to multiply and reverted to addition instead. After another 15 minute practice session using technology, he retook the test for the facts of 2 and scored 100%. His next prediction for the facts of 3 indicates a high level of confidence because he predicted 100% accuracy on this next quiz. Prior to intervention, LW passed 0 out of 7 quizzes with a 0% success rate. After implementation of the technology solution, LW passed 3 out of 4 quizzes taken with a 75% success rate.

Name: LW

My Fact Check Progress Graph



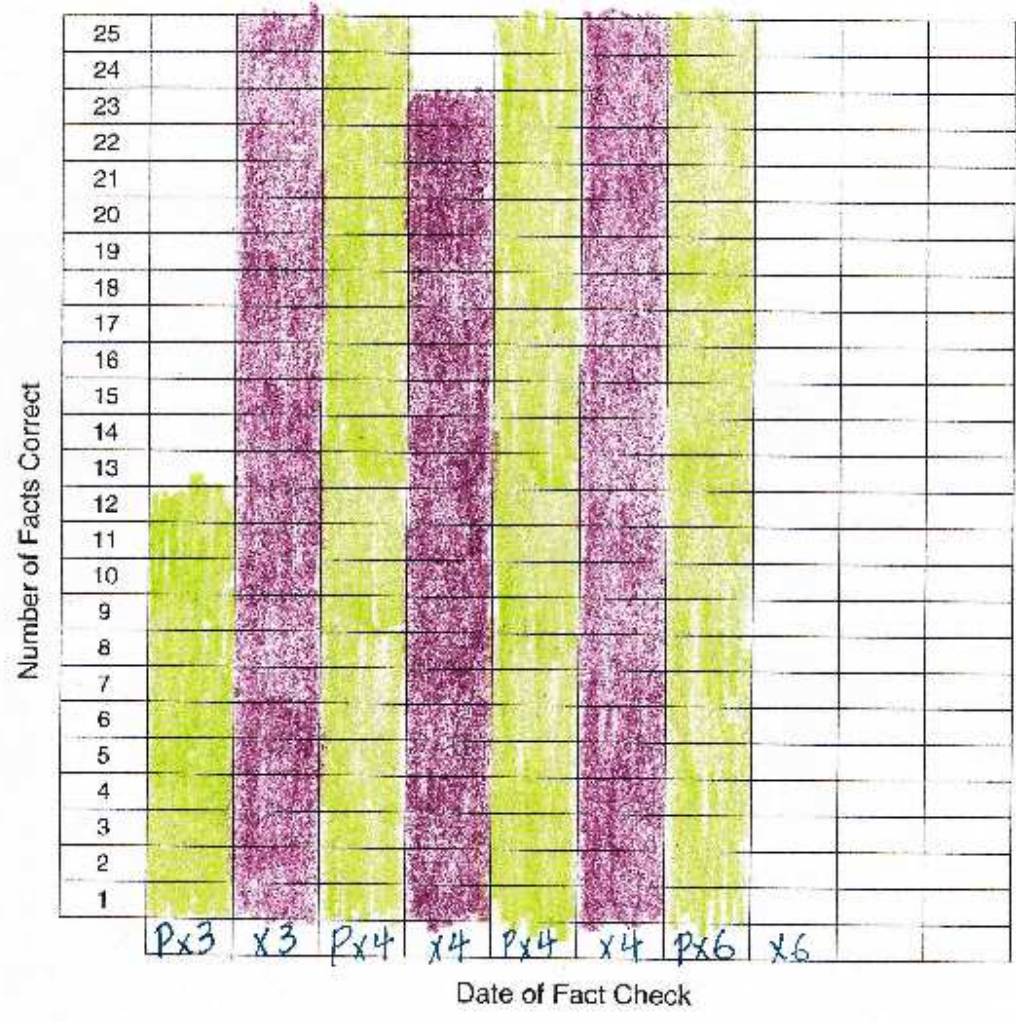
Prediction
 Number of answers correct



Student CH

Prior to the intervention program, student CH had the most success of all intervention students on his multiplication quizzes. Out of 7 quizzes, he successfully completed 3 of them with a success rate of 43%. When asked to make a prediction for his next quiz on the facts of 3, CH indicated he would get 12 of the 25 answers correct. After 75 minutes of technology intervention, he scored 100% on the quiz for the facts of 3. His next prediction for the facts of 4 showed improvement in his confidence because he indicated he would score 100%. After 5 minutes of technology intervention, CH passed the quiz with 100% accuracy. He then predicted his success on the quiz for the facts of 4 would also be 100%. Although his quiz score for the facts of 4 was 23 out of 25 correct, every question he attempted to answer were correct. He simply ran out of time which means while he had learned all of the products for the facts of 4, he just could not answer with automaticity. With further technology intervention, he took the quiz again and scored 100% on his second attempt. His pre-technology intervention quiz success rate was 43% while his post-technology intervention success rate increased to 67%.

Name: CH

My Fact Check Progress Graph



 Prediction
 Number of answers correct

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Student JC

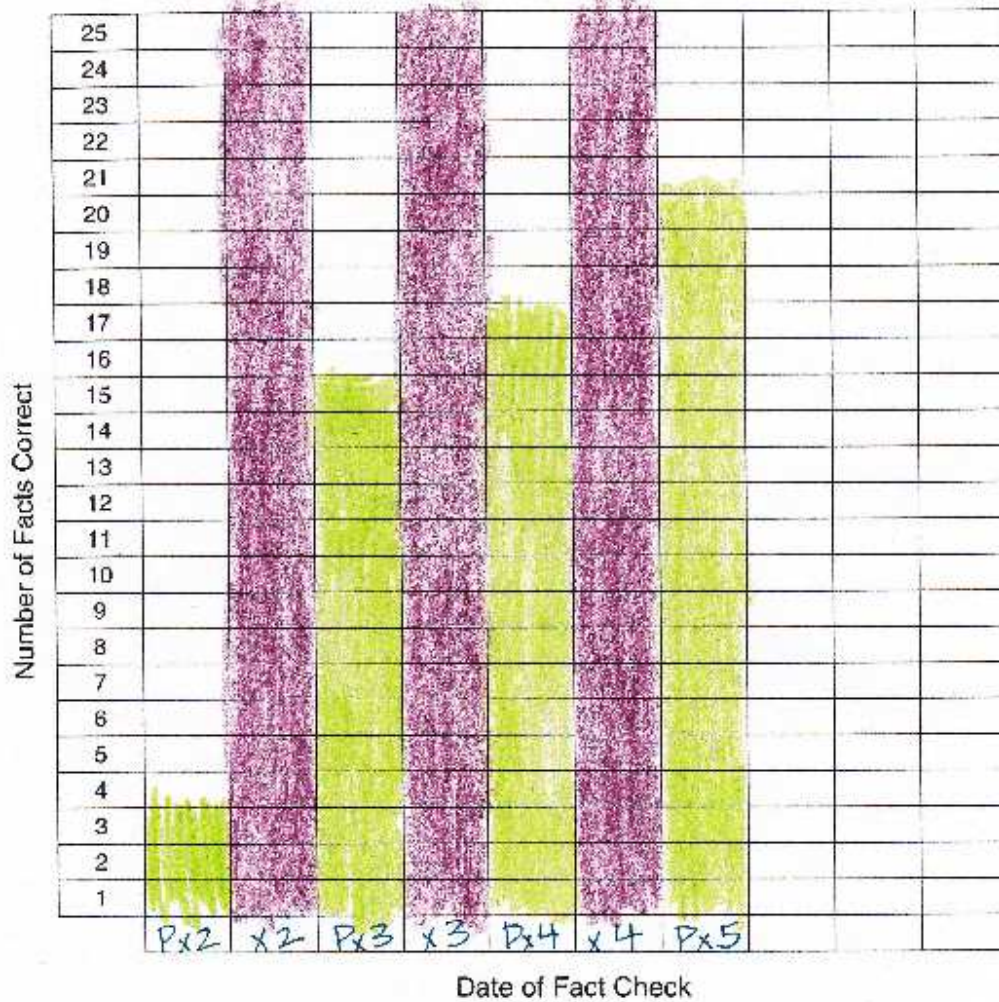
Prior to the technology intervention program, student JC took 7 multiplication quizzes and successfully passed 1 with a success rate of 14%. When asked to predict his success on the first quiz after technology intervention, student JC indicated he would answer only 3 questions correct on the multiplication quiz for facts of 2. After 75 minutes of technology intervention, JC took the quiz for the facts of 2 and scored with 100% accuracy. This seemed to bolster his confidence because he predicted he would get 15 correct the next quiz for the facts of 3. After 75 minutes of technology intervention, he scored 100% on that quiz. His next prediction for the quiz on the facts of 4 showed he felt he would answer even more questions correctly and colored in 17 questions would be correct. He scored 100% on his quiz for the facts of 4. His next prediction was even higher because he indicated he thought he would answer even more questions correctly on the next quiz.

The technology intervention program seemed to profoundly affect JC's confidence. After he saw the benefits of online practice and how his efforts using the intervention program made a positive impact on his success on the weekly quizzes he exclaimed, "Wow! That computer stuff works!" and added he couldn't wait to tell his mother.


After technology intervention, student JC passed 3 out of 3 quizzes with a post technology intervention success rate of 100% on multiplication quizzes.

Name: JC

My Fact Check Progress Graph



 Prediction

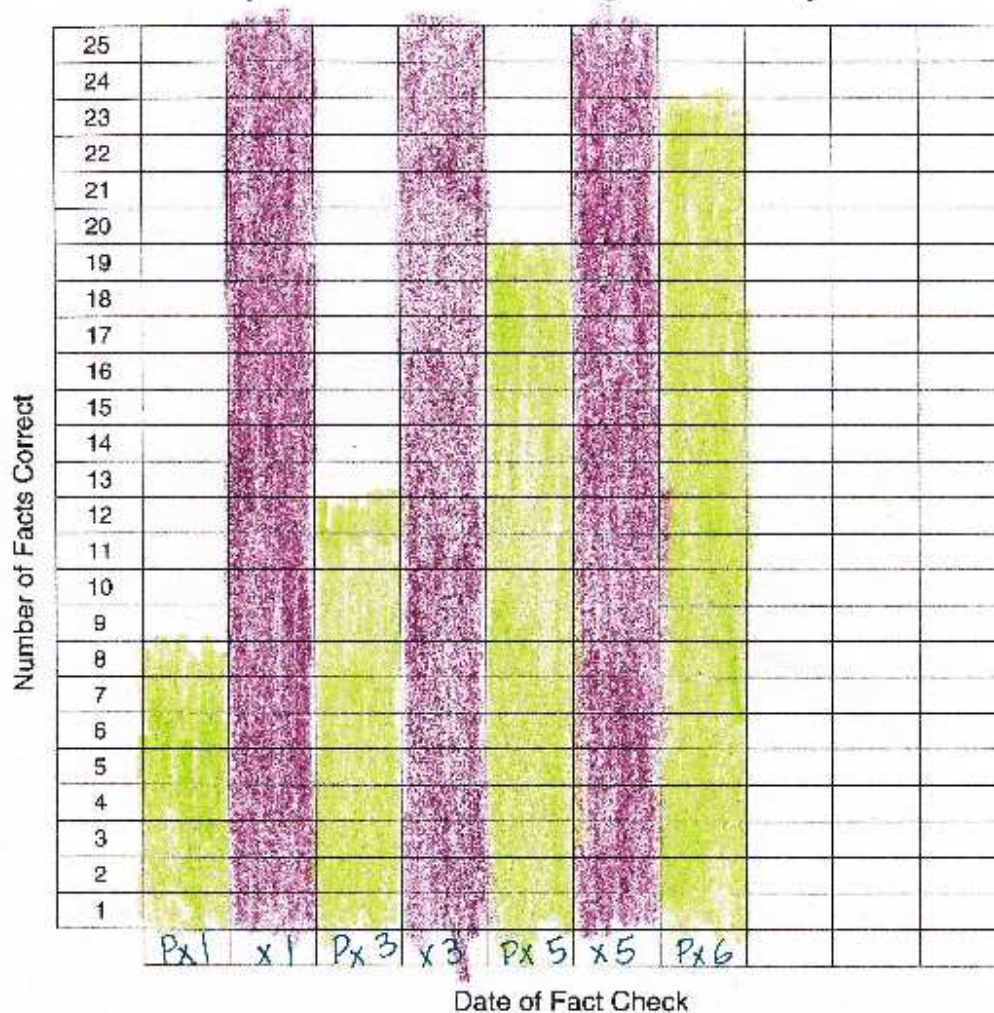
 Number of answers correct



Student NW

Prior to the technology intervention program, student NW passed 1 out of 7 multiplication quizzes with a success rate of 14%. When asked to predict his success of the next quiz for the facts of 1, he predicted he would correctly answer 8 questions correctly. After 75 minutes of technology intervention, student NW scored 100% on his quiz for the facts of 1. His next prediction indicates a boost in confidence when he said he would answer 12 correctly. After 75 minutes of intervention, he scored 100% on his quiz for the facts of 3. He predicted he would get 19 answers correct on his next test for the facts of 5. After the intervention he scored 100% on his quiz for the facts of 5. His success rate on the quizzes after the technology intervention increased to 100% after he successfully passed 3 quizzes out of 3 attempts.

Name: NW

My Fact Check Progress Graph



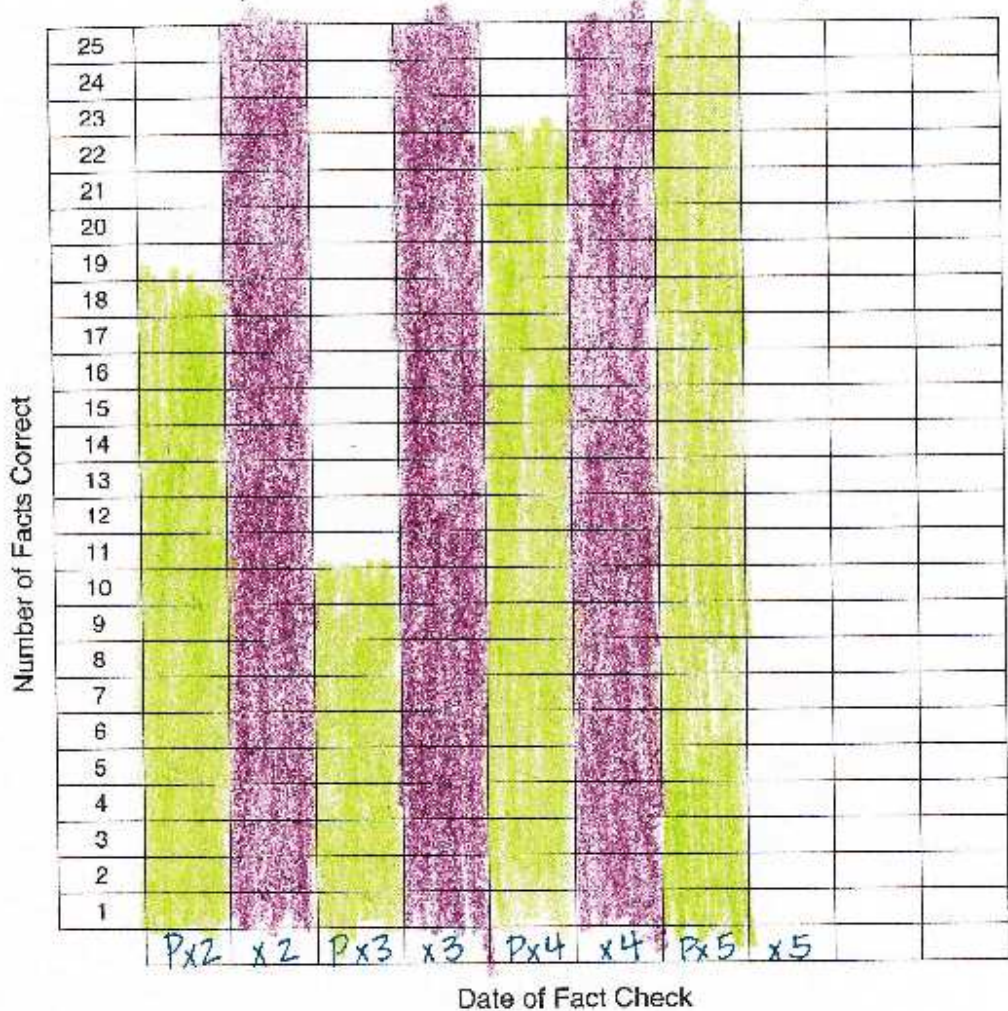
 Prediction
 Number of answers correct



Student DD

Prior to the technology intervention program, student DD passed 1 out of 7 multiplication quizzes with a success rate of 14%. When asked to predict his success on his next quiz for the facts of 2, he predicted he would answer 18 questions correctly. After 75 minutes of technology intervention, student DD passed his quiz for the facts of 2 with 100% accuracy. He predicted he would only get 10 questions correct on his next quiz on the facts of 3. After 75 minutes of intervention, he scored 100% on his quiz for the facts of 3. His next prediction was he would score 22 out of 25 on his quiz for the facts of 4. He scored 100% on this next quiz after intervention. His last prediction indicates he believes he will pass is facts test for 5 with 100% accuracy. After the technology intervention his success rate rose to 100% with 3 quizzes passed out of 3 attempts.

Name: DD

My Fact Check Progress Graph



 Prediction
 Number of answers correct

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