

Strand Trace in Algebra

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Participants were engaged in conversations regarding the trace of the algebra strand from the third grade ISTEP+ questions up through the Graduation Qualifying Exam (GQE). They were also engaged in discussing common errors students make in attempting those types of problems while discussing how we can better facilitate those concepts in our math classrooms. Teachers were given the opportunity to talk about how we can better equip students to be successful in our math classrooms.

After a quick introduction, the packet of handouts for the algebra strand trace was presented. Participants were then asked to solve some story problems themselves and discuss them with their small groups. After a few minutes, feedback was requested and we “compared notes” from our small groups.

We looked at the way each of the story problems was scored by the state evaluators, discussed some common errors we saw being made, and then compared these with thoughts from our discussions. During this portion of our examination of the test, we looked at the little things that would have made a difference in the ranking of students’ responses. We decided that there were common themes within the mistakes made, and we tried to pinpoint how, as teachers in the classroom, we could work to prevent those mistakes.

For example, it was agreed upon in some instances that mistakes were made due to reading errors and/or misinterpretations of the questions. Others occurred because students may have been off on the graphing portion – especially when they may have reversed the sequence for graphing ordered pairs and did it using (y,x) versus (x,y) . Some other mistakes occurred when students didn’t fully follow the equations correctly.

Included in the presentation was a compilation of some problems available from the *Everyday Mathematics* series at different levels, showing the participants that our young students in elementary school are hitting the algebra concepts pretty heavily and building upon them on a yearly basis in the program. Some secondary teachers at the session commented that some of the elementary problems presented in the student journals were almost identical to some of the problems asked of students at grades seven, eight, nine, and ten.