



## **Haslett Public Schools**

**Skill/Point Recovery Expansion Proposal  
Mathematics Department  
Haslett High School  
2009/2010 School Year**

Submitted by Art Chiaravalli  
March 20, 2009

### **NEED**

*As a parent of two kids who do not possess a "math brain", our family really struggles with the new four-year mandate for math. Many students will not go into careers that require algebra or geometry, but they are now required to take them plus to graduate from high school...I realize those in Haslett cannot change the current Michigan requirements. And I realize that until those requirements are changed, our children will be forced to adhere to them.*

*To me, that puts more responsibility on the families to encourage participation in all help offered, and on the teachers to offer more help to all those who need it. That requires more of all involved teachers—more time, more planning, more creative methods of education.*

*Your program is a great step in the right direction. Please keep it, and encourage others to create similar programs for the students.*

*Parent of Geometry student*

After a year of Skill/Point Recovery, my students, their parents, and I have been delighted with the results. While not a panacea for the problems we face, this option has been a helpful safety net for students struggling in my math classes. Regardless of the competence of the teacher, students will continue to struggle in math, especially due to the increased rigors of the Michigan Merit Curriculum.

Classroom math teachers are already doing all that they can. Mastery assessment is a time-consuming endeavor and teachers have enough on their plate. I offered the after-school program without pay, but I would not expect other teachers to do this. The curriculum simply moves forward too quickly to intervene in the context of the classroom itself, which is why a program like this could provide a "safety valve" for struggling students moving forward.

### **PLAN**

*Skill/Point Recovery provides a sense of relief for those with test anxiety. In many classes, the pace is so fast that if a student doesn't grasp a certain concept, they are left wondering about it as the curriculum moves forward. With S/PR, students are able to solidify their abilities with the incentive of gaining back lost points. Credit is not awarded unless the student truly grasps the concept, making the process fair and effective. It is a truly unique and efficient program.*

*Matt, Algebra 2/1 student, 10<sup>th</sup> grade*

I would like to expand the Skill/Point Recovery program this coming year, making it available to students in other sections of Geometry and Algebra 1.

Here is how the program would work:

- **Time:** I would run Skill/Point Recovery as an after-school session from 2:30-3:30.
- **Signing up:** Students from all sections of Geometry and Algebra 1 would be able to sign up for Skill/Point Recovery after a chapter test through their teacher. There would be some threshold for admission (for instance, I require that 80% of the homework be complete; other teachers could have their own threshold for admission to the program). Once the threshold requirements of the teacher were met, the “sending teacher” would simply go to my online roster (tadalist.com – the same one Darin Ferguson used to use for Lunch Study) and add the student for that day (Geometry would be offered MWF; Algebra TTh). If the sending teacher allows it, students who have received a B or better on the previous test could attend the sessions as tutors and receive homework extra credit.

Each teacher would put the student’s test in my mailbox before the end of that day. In order to coordinate the item analysis, it would be helpful if teachers would all use the Form A test, however, if a teacher wants to use another form or his or her own test, I would need to have a copy of it earlier in the chapter in order to prepare an item analysis checklist for the students to fill out (see attached for a sample Skill/Point Recovery Worksheet).

- **Sequence of activities:** The class will begin with an item analysis of the test. Each test item has already been tied to a particular learning objective. Using this worksheet, they will identify those skills for which they have yet to demonstrate mastery (giving preference those that will earn them the most points back in the least amount of time). If there are enough students working on one objective, a whole class or small-group mini-lesson may be provided. This will occur for the first 30 minutes. At 3:00, the testing will start. Students request those objectives that they have studied and feel ready for. I will also use my professional judgment as to whether a student is ready to re-attempt a given objective. Testing continues until 3:30 or until the student completes the assessment(s).
- **Awarding of points back:** Each day, I will correct the assessments and provide a “receipt” in the sending teacher’s mailbox along with the test and item analysis worksheet stapled on the front. This receipt will contain the following information: the original score, the objectives tested, the objectives mastered, and the new score, obtained by adding back all lost points associated with a mastered objective (see attached for the “Skill/Point Recovery ‘Receipt’”). The teacher can then edit the student’s grade on Skyward to reflect the new level of mastery. In keeping with the spirit of mastery assessment, I also change the quiz grade percentages to reflect this most recent performance. Ideally, homework and other sources of points would be minimized.

## COST

I would expect to be paid at least at a sub rate. Other than that, there would be no additional costs to run the program.

## HOW WILL YOU KNOW YOU WERE SUCCESSFUL?

My hypothesis is that the struggling student who does not have additional chances to demonstrate mastery becomes a worse and worse student as time goes on as their hope of passing or understanding the material diminishes. A student with multiple opportunities to improve their skills *and* their grade, on the other hand, will maintain greater engagement and therefore attain greater levels of mastery overall.

I would like to see how frequent attenders of Skill/Point Recovery fared on the Semester Exam as compared to their other low-scoring peers (other students receiving Ds and Es on exams). As one student testified:

I found proof that [Skill/Point Recovery] worked when I took my finals. After I got it back, I compared it to my other tests, and the things that I worked on in Skill/Point Recovery I got right on the final and my score was substantially better.

While giving students a chance to do better in the class is an important goal for me, *an even greater goal is for their level of mastery to be greater as they leave*. The Semester Exam is not the most precise measuring device, but it could provide some data affirming this goal was accomplished.

Attachments:

- Skill/Point Recovery Worksheet
- Skill/Point Recovery "Receipt"
- Comments from Parents and Students

Attachment:

# Algebra II/I Chapter 8 Skill/Point Recovery Worksheet

Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

Chapter 8 Objectives	Problem Numbers: (Total Points)	Score	Mastered?		Points Lost
			Y	N	
A. Find values and rules for composites of functions.	1: (1)	/			
B. Find the inverse of a relation.	2, 7, 9: (5)	/			
C. Evaluate radicals.	3, 4, 6: (3)	/			
D. Rewrite or simplify expressions with radicals.	5, 8, 17, 18, 19: (5)	/			
E. Solve equations with radicals.	13, 14: (2)	/			
F. Apply properties of the inverse relations and functions.	20: (1)	/			
G. Apply properties of radicals and $n$ th root functions.	12: (1)	/			
H. Solve real-world problems which can be modeled by equations with radicals.	15, 16: (2)	/			
I. Make and interpret graphs of inverses of relations.	10, 11: (4)	/			
Totals:		/25	/ 9		

List of objectives in order I want to recover them: \_\_\_\_\_

Attachment (half sheet):

## **Skill/Point Recovery "Receipt"**

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Test/Quiz: \_\_\_\_\_

Original Score: \_\_\_\_\_ Letter Grade: \_\_\_\_\_

Objectives Tested: \_\_\_\_\_

Objectives Mastered: \_\_\_\_\_

New Score: \_\_\_\_\_ Letter Grade: \_\_\_\_\_

Teacher Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Comments:

Attachment:

**Some comments from parents:**

Mr. Chiaravalli,

I am all in favor of any extra help that is made available to students who do not have math strengths.

As a parent of two kids who do not possess a "math brain", our family really struggles with the new four year mandate for math. Many students will not go into careers that require algebra or geometry, but they are now required to take them plus to graduate from high school.

Instead of allowing students to learn in fields that interest them, we are forcing them to participate in classes where they do not have strengths, and in many cases forcing them to struggle and fail. How does this enhance their high school experience, or better prepare them for the "real" world?

I realize those in Haslett cannot change the current Michigan requirements. And I realize that until those requirements are changed, our children will be forced to adhere to them.

To me, that puts more responsibility on the families to encourage participation in all help offered, and on the teachers to offer more help to all those who need it. That requires more of all involved teachers -- more time, more planning, more creative methods of education.

Your program is a great step in the right direction. Please keep it, and encourage others to create similar programs for the students.

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I have LOVED the Skill/Point recovery both as a mom and fellow teacher. One of the main things that I appreciate about it is the focus on learning the SKILLS not just raising a test score. I know in my own class, I wrestle with what to do with those kids that just didn't seem to get a concept. Unfortunately, there is often just not enough time to make sure that all kids are "getting it". We often feel like we just have to continue on despite the fact that we know we have kids who have still not mastered the skills- this is so against everything I believe in!! I have told Jordan a number of times how lucky he is to have a teacher who is willing to go that extra mile to make sure that he is understanding what he is doing, as well as being given an opportunity to raise his score. In my opinion, Skill/Point recovery is the perfect example of making sure that kids are learning, not just that the teacher is teaching. Thank you so much for taking all the time to offer this very important piece!!

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Hi Mr Chiaravalli,

Tyler has tried to attend all possible skill point recover sessions. He was always been a good math student however, Geometry is difficult for him. He is clearly struggling and the ideas are not coming easily. He is able to slow the pace down and gain a clear understanding in skill point sessions. Thank you for giving him the extra time and help he needs. I am very excited about this as he is not just improving his grade but mastering the skills to use in the math course ahead of him. Without the time and effort you have given him I would be very concerned about his success in future high school math classes and college. This way even if his grades aren't great up front, he is not losing these skills he will need in the future.

Thank you for your time and attention in ensuring my sons future success!!!

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Mr. Chiaravalli-

Skillpoint Recovery seems to be helping Kaleigh tremendously from the aspect of tutoring other students. Obviously, her grade has improved drastically and she seems to be understanding the material much better these days. From her standpoint, "teaching is twice learning", and it seems to be really working for her.

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The flexibility of Skill/Point Recovery has helped Matt work around our busy schedules, and stay active as an advocate for his grade. In a period in Matt's where motivation is hard to find, I am thankful for the opportunities that your class offers. Thanks.

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Alexis has not been in the Skill Point Recovery but she has been a tutor for it. In some cases, it works that the teacher / tutor sometimes learns just as much as the student. I think this is that case here. She has loved helping others with it. I look forward to meeting you next week at Parent Teacher Conferences. Thanks

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I have been very impressed with the Skill/Point Recovery program. While we give "lip service" to the fact that we want all kids to learn the material, we are far too often comfortable assigning the grade and moving to the next topic - whether or not the students have actually mastered the information. It seems an obvious assumption that students learn at varying paces, but traditionally, we still expect everyone to learn the same material at the same time. The math program, is particularly vulnerable to "losing" kids, because one concept often builds on another. So, if a student does not have adequate time to process the concept, he or she is at risk for missing out on the next concept, as well. While the S/PR program may not be THE answer, it at least attempts to creatively address some of these issues.

So often, creative programs go by the wayside because it is difficult to deal with the reality of assigning grades and motivating students to take part. The S/PR program has dealt effectively with these issues. The concept of changing a student's grade to reflect mastery of the content has been a VITAL component to the program. If we are open enough to really believe that a grade should reflect what the child has learned, I cannot imagine anyone having an issue with the grading system. Further, it motivates students to actually take part, because it affects areas that are important to them- their grade point and (possibly) their credits for graduation.

Finally, from a district perspective, I would think expansion of the S/PR program would benefit the school in terms of improved standardized test scores. While there wouldn't be any data to confirm that yet, it would seem that as more students are given the opportunity to master more of the curriculum (versus being passed along through it), more students would be successful on these tests.

### **Some comments from students:**

The whole purpose of schooling is to learn and understand the material. Skill point recovery is the best way for students to accomplish this goal. In a normal class, if a student fails a test, they just fail the test without understanding the information. With skill point recovery, if you fail a test, you have the opportunity to gain back points. SPR allows students not only to gain back points, but to truly understand the information. SPR is the best way for me and my classmates to understand math.

Ryan, 11<sup>th</sup> grade

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Skill point recovery helps you work on your weaknesses so that they can become your strengths. Other kids can come in and help tutor you so that you understand it better.

Patrick, 10<sup>th</sup> grade

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Skill point recovery provides a sense of relief for those with test anxiety. In many classes, the pace is so fast that if a student doesn't grasp a certain concept, they are left wondering about it as the curriculum moves forward. With SPR, students are able to solidify their abilities with the incentive of gaining back lost points. Credit is not awarded unless the student truly grasps the concept, making the process fair and effective. It is a truly unique and efficient program.

Matt, 10<sup>th</sup> grade

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SPR has been a safety net for me. During a test my mind just went blank and I ended up receiving a D- on it. I was able to go over what I missed and work my way back up to a B+. I think that other teachers should offer SPR because its not fair for students who put forth the effort and have a bad test day. This would give a second chance at the test.

Dylan, 10<sup>th</sup> grade

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Getting my grade up from a D to a B is always good. But I especially like that I learn the stuff and don't just lose it all come final time I wouldn't know it. But I actually knew things on the final because of it. Also with tutoring I can earn homework grade up.

Tommy, 10<sup>th</sup> grade

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I believe Skill Point Recovery is extremely helpful to me. Once I find out what objectives I really need to work on I focus on that completely. If I then make a mistake on an objective, I'm confident that I can get back points and not stress.

Sonya, 11<sup>th</sup> grade

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Skill point recovery is a very good program. In all classes in school, there are topics that even the best teachers can't teach me. Skill point recovery gives me the opportunity to learn from my mistakes (which is said to be one of the best ways to learn).

Ian, 10<sup>th</sup> grade

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Skill point recovery gives me a better one on one ability to learn the objectives that I have not understood. It takes me a lot longer to grasp on to the concepts of math then some students and instead of punishing me for it, it gives me the ability to learn and get the objectives back. I really think it is a great activity for learning.

Rochelle, 11<sup>th</sup> grade

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Skill point recovery has helped me tremendously. If you are in need of help or a better grade on your test, this is definitely the place to get it. I went from an E on a test to an A. Skill point recovery has improved my grades and has helped me to learn more and learn what my mistakes were.

April, 9<sup>th</sup> grade

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After S/P recovery I understand how to do the things I didn't before. It helps my grade. Because of it, I actually understand math and have a good grade in math class for the first time in 2 years.

Nesh, 9<sup>th</sup> grade

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I'm not very good at taking tests so I don't do well on them. Skill point recovery helps understanding of the objectives. SPR helped me get points back and raise my grade while gaining understanding. Skill point recovery is a great opportunity and I wish more teachers offered it.

Gwen, 9<sup>th</sup> grade

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When I go to SPR I actually learn the material necessary for Geometry. It's not a program where you go and you just redo the entire test. You re-do objectives or part of the chapter making it more time efficient and specific to your needs. It takes time and effort, but you got to do what you got to do to pass and succeed. It's a really great program and I recommend it to all.

Dan, 9<sup>th</sup> grade

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Skill point recovery has been a great thing for me. Not just to recover points on my test and save my grade, but to actually learn the things that were difficult for me. Before skill point I would never learn the things that I didn't get right on the test and we would move on, but now I get a second chance, and more explanations on the things that I didn't understand. I found proof that it worked when I took my finals, after I got it back, I compared it to my other tests and the things that I worked on in Skill point recovery I got right on the final, and my score was substantially better.

Tyler, 9<sup>th</sup> grade