An Instruction Committee of the Whole Board
April 23, 2009

An Instruction Committee meeting of the Whole Board was held on Thursday, April 23, 2009 in the Board Room. Dr. Millard opened the meeting at 10:01 a.m. Committee members present were John C. Allen, IV, Jacques A. Conway, Valerie J. Fisher, Dr. Ralph H. Lee, Dr. Dietra D. Millard, and Sharon Patchak Layman. Also present were: Dr. Attila J. Weninger, Superintendent; Philip M. Prale, Assistant Superintendent for Curriculum and Instruction; Amy Hill, Director of Research and Assessment; Nathaniel L. Rouse, Principal; and Gail Kalmerton, Executive Assistant/Clerk of the Board.

Visitors included Kay Foran, OPRFHS Community Relations and Communications Coordinator; Donald Vogel, Division Head for Business/Media/Library Services; James Hunter, Faculty Senate Executive Committee Chair; Debbie Neuman, Math Division Head, Lauren Smith and Kathy Wirtz, Mathematics Teachers, and Amy Leafe McCormack, Board of Education member-elect; and Chuck Fieldman of the Oak Leaves.

Approval of February 19 and March 19, 2009 Instruction Committee Minutes
It was the consensus of the Instruction Committee member to accept the February 19, 2009 minutes, as presented, and wait for clarification regarding the March 19, 2009 minutes.

Update on Algebra Initiatives
Mr. Prale, Ms. Neuman, Ms. Wirtz, and Ms. Smith collaborated on a memo, explaining that Algebra teachers were working on analyzing student outcomes on common assessments; the outcomes are determined to be a result of changes in classroom curriculum and instructional programs. A curricular approach used is the web-based program called Agile Mind, an interactive, visually oriented program that helps students solve algebra problems, monitor their own progress, and study for and take exams online. It was stated that the math division’s work with Agile Mind has led to ongoing review of the Algebra curriculum offered in the Algebra 1-2 and Algebra 1-2 Block classes (Algebra 1-2 Block classes meet for an average of 120 additional minutes each week). The ongoing review of the Algebra program uses Mastery Manager software that allows teachers to analyze results from common assessments used by all Algebra 1-2 and Algebra 1-2 Block classes.

The common assessments given in Algebra classes at the end of Quarter 1 and the Semester 1 Final Exam were compared according to a set of math standards aligned with state standards and ACT college readiness standards. Teachers then use the results from the assessments to identify areas of confusion or underperformance on specific algebra standards associated with specific test questions. Thirteen standards were identified to be measured.
One example shared by the teachers was that by using Mastery Manager results from last year, teachers discovered that the Agile Mind approach to the standard of analyzing domain and range lacked consistency. Teachers then adjusted their classroom lessons in an attempt to improve student outcomes. This year the assessment results on that standard showed minimal improvement. Another standard which addressed identifying slope received attention from the teachers based on 2008 results and showed greater improvement in 2009.

Overall, student results from the Semester 1 Final Exam in January 2009, when compared with results from January 2008, showed improvement on eight of the thirteen standards. However, the variation from 2008 to 2009 was within a range of +/- 1 to 3 percent on eight of the standards; of the five standards showing greater variation, +/- 5 percent or more, three showed positive improvement and two showed negative improvement.

**The conclusion and recommendations were as follows:**

- Agile Mind and revisions to the Algebra program show some improvement as demonstrated by the Mastery Manager results; however, a greater rate of improvement is needed to accelerate student achievement in algebra.
- Continue to look at other indicators of student achievement in algebra, including standardized test results (testing is occurring this month for ninth, tenth, and eleventh grade students).
- Maintain the Agile Mind program and the teacher-led team to consider additional curricular and instructional revisions to the Algebra courses and continue to adapt instructional strategies in math classes based on Mastery Manager results.
- Reinforce the revised teaching of Algebra that has come from the ninth grade program and apply workable elements to the Intermediate Algebra and Advance Algebra programs.
- Create and use common assessment in the Intermediate Algebra and Advance Algebra classes.

Kathy Wirtz, part of the Teacher Collaboration Team that started with Agile Mind, stated that the team reviews the results from common assessments quarterly and after the final exams. Noticeable after using Agile Mind for three years was that fact that there were many inconsistencies, as the students did not perform well on age and range. Thus, teachers developed specific guidelines regarding domains in the areas of age and range. Mastery Manager allowed the teachers to compare last year results to one this year.

While students did improve with slope, it is not something that Mastery Manager would show. Even if a student gives an answer that shows there is not mastery, there may be some mastery; however, it is difficult to discern. When Dr. Millard asked how one would know from an answer if there were a partial conceptual understanding, Ms. Wirtz stated that a student could look at a line, see that it was falling, and determine that it was a negative; that may be partial understanding. Teachers try to teach different approaches to solving problems. The current juniors are the first students to have taken the Agile Mind
block classes their freshman year. Teachers are looking to see how Agile Mind has affected the advanced algebra classes as well.

Dr. Lee sensed a dilemma from reading the report. Agile Mind as a concept is valid and should be useful, but the data shows little indication that it is working. Mr. Prale responded that when the high school became involved with Agile Mind, a comment by the Evanston Township High School Math team was made that Agile Mind is not the answer to improving student math achievement but it does encourage math teachers to look at all the materials, e.g., worksheets, tests, etc., and the attachment of specific test questions to standards. It started a conversation that is very useful and it is responsible for some of the improvement that has been seen and may lead to even greater improvement. It started a conversation as to how Agile Mind and Mastery Manager could better be used.

Ms. Smith stated that this year’s juniors were the first group to have gone through this program and that it is not just this program or the curriculum that had to be reviewed; it also included how a teacher presented the information, how much time was given to it, what was the quality of the instruction, what was really being tested, and how good was the value of the assessment. That may be what Dr. Lee’s was feeling when he said that might be a dilemma. Mr. Prale felt that it was not a dilemma, but an opportunity for the teachers to exam their practices and their materials. Ms. Neuman reported that the WorkKeys format of the PSAE was similar to the Agile Mind approach, i.e., word problems are used in real life situations. Ms. Smith stated that previously, students did not attack word problems and she hoped for positive results on the PSAE scores.

Dr. Lee then asked what conclusions could be drawn about the effect of the Agile Mind program on teachers. Ms. Smith, speaking for herself, felt it had improved her teaching, as she is no longer teaching a specific formula but teaching the tools to attack a formula, with the idea that when a student sees a question on the ACT, he/she will have the tools to attack the problem. It has changed her teaching dramatically. She also teaches calculus concepts and in the introduction of any calculus textbook, it talks about it being taught through the Rule of Four. Ms. Smith feels that she is trying to keep a common theme through the Rule of Four and from that perspective, the teachers are being more cohesive. The students work simultaneously with her on the problem. Ms. Wirtz concurred and noted that it had changed her teaching in other classes as well. Dr. Lee hoped that when they described the validity of the program that the teaching was more important than the test scores of the students. Dr. Lee stated that it might not be producing better math students but it might be producing better chemistry or physics students.

Ms. Smith stated that Agile Mind teachers use spiraling, a methodology of systematically revisiting old topics. Mastery Manager is being used to inform the teachers of Advanced Algebra of the students’ weaknesses and what areas to improve upon for the PSAE. She is teaching the original freshman students who are now juniors and she understands their weaknesses and their successes because she knows their experiences. Mastery Manager is now used only for common assessments, i.e., results on the final exam and quarterly
assessments. Mr. Prale stated that it would start with curriculum but continue with student assessment. Teachers are looking at other teachers classroom-by-classroom results. The question to ask then is how did one get the results he/she did. That is powerful. Ms. Patchak-Layman stated that when one finds out that when a student does not have the information, does a teacher then spend more time on it later or would there be the opportunity to spend time on it again and figure out what can be improved. Ms. Wirtz said that Mastery Manager is not a day-to-day tool, only Agile Mind. Data has shown in previous years that when students spent more minutes on Agile Mind, independent of the classroom, they are more successful.

Ms. Patchak-Layman stated that it was her understanding that Mastery Manager is used more frequently with benchmarking and with tests. She asked the following questions:

Q: When there is the opportunity to review what information was found, in addition to the curriculum changes, how much immediate information can be used for the present students?

A: Mastery Manager is not used for students at this point. Students are taking more and more tests and it will be easier in the future to help the individual student as the data is collected.

Q: Can students be accelerated within the Agile Mind program?

A: Students could advance by themselves, but Agile Mind is not a program that allows students to move ahead without mastery. In terms of immediate feedback, there are assessments as to whether they were correct or not. Therefore, in that respect, students could advance by themselves.

Dr. Weninger repeated that Agile Mind has helped students become better problem solvers, but that fact may not be readily determined based on a test score. He asked what performance measure is used to make that determination. Hopefully, if students have learned different problem solving skills or methodologies, they will be able to apply those skills in areas other than math. Ms. Smith responded that the constructive response part of the final is one large problem in which they break it down in four categories, work through it, and prepare an answer. That is an example of a formal assessment. Informally, students are more likely to attempt their homework than in the past. That is what personally hooked her into the Agile Mind way of teaching. Ms. Wirtz said students used to shy away from word problems, but Agile Mind students only have word problems. Thus, students have less fear of them. In addition, teachers created workbooks for every unit and they are filled with real world situations.

Dr. Lee stated that while the comments have been on the Agile Mind and Mastery Manager, he asked what kind of resources, from a cost benefit view, had to be expended in order to implement these two programs. Mr. Prale stated that the cost benefit analysis shows that the benefit is greater than the cost in both time and dollars. Teachers spend time Monday mornings, after school, and on professional development. Dr. Lee asked if the investment of the time of the teachers had to continue in the same way in order to continue the Agile Mind Program, as an ongoing-repeated investment of their time. Mr. Prale stated that they were trying to diversify the kinds of collaboration time available.
Agile Mind is an RtI approach, so the time is still needed, but not in the same way. Ms. Smith stated that because this is the first time these freshmen are juniors, more than a couple of years of follow through is still needed. The teachers feel they are getting better every year in this methodology.

Dr. Lee felt the school was trying to work toward gaining the ability to be eventually able to evaluate the effectiveness of new programs with which it starts. He felt that the school has not been in a position to tell whether a new program was effective and/or worth continuing. Ms. Neuman said that professional development was priceless. The opportunity to have data is greater than it has ever been. The teachers all had to adjust to a different teaching style in the first year. These teachers, having to adjust to a different learning style, all wanted to continue to use this program. That spoke volumes to her about the professional development that has taken place.

Ms. Patchak-Layman asked if the high school were able to look at the disaggregated data for students based on the subgroups and if it was seeing anything within that data that would suggest that subgroups of students were making good gains. The response was that all freshmen were involved in Agile Mind instruction. There was no significant difference between the block and single students (block students have much weaker skills). Ms. Patchak-Layman also asked if one could disaggregate the data using ID’s and tagging them by ethnicities. The response was that teachers do not have time to disaggregate the data and because Mastery Manager is new, there was nothing to compare. Anecdotally, Ms. Smith felt her students were not getting worse and her bar graphs were getting higher. She was hopeful. When comparing a student in an algebra block class and a student in a single class, there is little difference. That speaks volumes, as the block class students are trying to get to grade level. To be able to identify those students, capture them, and then get them to point where they can compete is a big start for them.

Dr. Weninger stated that common assessments are given in algebra classrooms, using Agile Mind, at the end of each semester. He asked for clarification as to the data. Mr. Prale stated that the District was able to track by ethnicity and gender using Mastery Manager but the analysis was not possible. Another standardized test would be needed to answer Dr. Lee’s questions as to whether this program was yielding a result. EPAS is an important measure but not the only measure. Mastery Manager and Skyward talk to Excel but not to each other. Ms. Smith added that teachers have a different level of access to Skyward versus the administration. Mr. Prale reiterated that of the thirteen state standards attached to the common assessment, there have been improvements in eight of them.

**Internet Safety**

Instruction Committee members learned that during the fall legislative session Public Law 095-0869, the Internet Safety Act, was amended requiring that all “districts must incorporate into the school curriculum a component on Internet Safety to be taught at least once each school year to students in grade 3 and above.” The Act was enacted January 1, 2009 and is effective beginning with the 2009-2010 school year. Schools have
discretion as to how to implement the law. For the purpose of this discussion, the term Internet Safety will be used to cover a wide range of issues including but not limited to cyber-bullying, on-line predators, transmission of personal information, identity theft, passwords, harassment, and copyright.

While having surveyed various high schools, little guidance was gleaned as to how to implement this law into the high school curriculum. At OPRFHS, the vast array of choices available to students and the fact that students do not move through the curriculum in a lock step fashion is problematic in implementing this law.

Instructional Council had discussions regarding the implementation of the new law and it recommended the following:

1. That the issue of Internet Safety be introduced to freshmen as a part of (1) the Physical Education self defense program for boys and girls, (2) as a writing topic within the freshman English classes with the possibility of a summer reading text in 2010-2011, and (3) the introduction of the HuskieNet Guide in freshman science and world history classes.
2. Sophomores will visit this topic on one of the standardized test days.
3. The counselors will address this topic as a part of the College Search process presentation for juniors.
4. A senior presentation will be developed which involves recent graduates who can address the issue from a personal perspective within the college setting and the workplace.

In addition to these activities for students, information for parents in the form of handouts, and presentations will be available, and the topic of Internet safety will be presented as appropriate in all classes.

There was discussion as to the necessity of having this training for high school students. Mr. Rouse reminded the Instruction Committee members of what had happened with a student and a list of girls earlier in the year at OPRFHS. The high school wants to caution students about putting out information about classmates, inappropriate material, or accessing information, e.g., sexting, which is messaging pictures of body parts, etc., on Facebook, etc., and how those could be brought into a court of law and they could be consequenced as it relates to pornography.

Dr. Weninger stated that this is required of all schools and for the purposes of Internet safety, the school will look at cyber bulling, online predators, transmission of personal information, identify theft, harassment, passwords, and copyrights.

Ms. Patchak-Layman felt that during each day, students get their passwords, etc., and she was unsure it had to be an official class. Each interaction over the Internet was one more possibility to bring the information forward. Mr. Rouse stated the first time the student goes to a lab, teachers do talk about Internet safety, but because the state wants to take a stronger stance, the high school was providing recommendations to the Board of
Education to ensure that the school is covering all of the bases. Dr. Millard did not believe any of them were too young to know all of this information and that everything should be told to them during their first year.

Mr. Hunter noted that it was imperative that the school have the discussion despite the law, as there is now the added issue of Internet access from cell phones.

**Grading Questions**

Per the discussion last month regarding whether credit for music should be included in the GPA, Mr. Prale presented the Instruction Committee with background information regarding the previous discussions the school has had in this regard. The last discussion regarding grading practices at the high school culminated in a memo to the Board of Education written in 2006. No significant changes were proposed in the existing system at that time, although teachers and divisions were encouraged to review their practices regularly.

The discussion of incorporating grades from music performance classes in the GPA was held in February 2005. It was discussed at the Board of Education level and at the community level. The reasons given for including music performance grades in the GPA included:

- all music courses would need to establish and publish grading standards and criteria, which could enhance those classes and those programs;
- all courses across all divisions and the student experiences in those courses would receive equal treatment as reflected in the GPA;
- students would be encouraged to perform their best work in all classes; and
- many other schools in the area calculate music grades in a student’s GPA.

The reasons given against including music performance grades in the GPA included:

- a dilution of the GPA may result due to the current patterns of grades issued in music performance classes: most grades issued in music performance classes are A and B grades;
- student course selections could change and other elective classes might experience a decline in enrollment;
- as GPA’s shift, other shifts will occur in student class rankings;
- the knowledge and skills taught in music performance programs have not been established as appropriate to the GPA; and
- including fine arts performing classes in the GPA could require FTE currently not budgeted in the 5-year plan. The Board of Education and administration would need to reconsider the current required freshman study hall; if that requirement were removed, students could enroll in more classes, increasing FTE and overall costs.

Ms. Frank’s public comments at last month’s meeting, included in a letter e-mailed to Board members, stating her request that the Board reconsider this matter. She has asked that the District “include the grade from any fine arts performing class into the GPA,” or
that OPRFHS make the fine arts performing classes a pass/fail grade and add specific language to the Academic Catalog to clarify matters for parents.

Mr. Prale stated that the Board should expect clearer and specific language in the next edition of the Academic Catalog. Changes to the online version of the catalog have already been made. However, no other changes are recommended at this time because:

- The impact of allowing ninth grade students to take an additional class in which the grade is calculated as part of the GPA has not been estimated in relation to the effect on class rankings of the additional grades for music students or the cost of more teachers if all freshman students were allowed an additional course, whether that course were a music course or not.
- Consideration has not been given to other class grades currently not part of the GPA: Physical Education, Driver Education, Academic Strategies, and publications courses.
- Regarding using the pass/fail grade in music classes, the pass/fail option would remove letter grades from student transcripts and reduce the amount of information available to colleges regarding student achievement in music performance classes. Currently, the letter grade is listed on the student transcript but is not included in the GPA or class ranking.

Discussion ensued:
Q: Are these performance classes considered co curricular activities, e.g., orchestra or band performances?
A: Yes.
Q: Does the fact that an activity occurs between 8:00 a.m. and 3:00 p.m. determine if a grade is given?
A: A better analogy would be if one compared orchestra or band to a PE class and occurred during school hours.
Q: Could a student opt-in to including the course into the GPA? Why should it not be an option if one is a serious musician?
A: It is not unusual for music to be included in the GPA. In addition, PE is also included in the GPA in many schools.

Dr. Lee supported the existing policy partially because he was accustomed to it. When he was a student in high school, he participated in the marching band and when he was in college, he played the bassoon; it had not occurred to him as to why he would want his grades to count towards his GPA. On the other hand, he sat side by side with students who were seriously involved in music, had skills far greater than he did, whose investment in that work went far beyond what he himself put into it, but they were in classes that were graded and it counted toward their GPA. The difference between Dr. Lee and his classmates was the level of investment and the work that went into it. They earned the right to have this in the GPA because of the magnitude of the work that went into those classes. They were serious musicians and he was not. Band members did not have the opportunity to have it counted as an academic credit, but those students who were taking classes had the opportunity for credit.
Dr. Weninger stated that every college and university redoes every high school transcript. Mr. Prale stated that the strength of the program is as important as the overall GPA or rank. Dr. Weninger felt the argument is a broader one for all Board of Education members, including the new Board of Education members. There is an underlying concern on part of the non-music teachers that if a music grade were included in the GPA it would inflate the grades of those students. OPRFHS is a comprehensive high school and the Board of Education and the institution need to wrestle with the fact that a great deal of weight is given to traditionally academic courses. What does not allowing these performance classes say about the value in terms of a comprehensive GPA as compared to those courses that are assigned to the GPA? The Board of Education should consider this philosophical question on a broader level. These inconsistencies should be discussed.

Ms. Patchak-Layman felt more discussion was worthy because she did not understand why the high school did not give credit in the GPA for physical education, Drivers’ Education, anything outside of study hall, when a teacher is instructing and involved the activity and the District wants them to perform to their highest ability and endeavor. She did not understand the distinctions of what has been accepted. Mr. Prale stated that historically it had to do with how the grade point average was conceived and the experiences of the students in a comprehensive high school. He understood the thinking of that when one has performed in a class and as a result, one is issued a grade, which is factor into the GPA. The position at OPRFHS is that it wants students to try different things. That is why grades are not weighted and grade point averages are weighted. OPRFHS differentiates courses that have co-curricular aspects or do not have as much homework as other classes so that the A in the publication classes, Tabula, Newscene, etc., would not go into the GPA. They are viewed as hybrid activities. Regarding the distribution of grades, 392 students first semester were in music performance groups, 334 or 85 percent of the grades issued in these classes were A’s. Those A’s would come into the GPAs and there would be a ripple effect. Dr. Weninger stated this conversation speaks to the rigor and curriculum of the class.

Ms. Fisher suggested that when this is revisited, teachers from every division should be included in the conversation, as they would be the ones impacted by a change. One can the same for each of the different groups, music, physical education, business, etc. All will say that their students work hard and their grades should be included.

Mr. Prale stated that this would affect planning and the Board of Education must consider the consequences. If a music grade is allowed in the GPA, will freshmen be allowed to take a seventh course? Over 500 students presently take a required study hall and the ones that take music do not receive grades. Thus, they do not have an advantage over the other students. If all ninth grade students were allowed to take a class that factored in their GPS’s, it could have a dramatic impact on the District’s planning and finances. Students could say that they wanted to take an elective course rather than a music course. Presently, the school offers many electives from which the students could choose instead of music. The high school wants to provide opportunities for the students in a balanced way. What kind of high school does the school want to be is a larger and broader
If music grades were allowed for music performance, would more students be interested? It was predicted that might occur and there might be a flattening out of other elective classes. The GPA is the gatekeeper. OPRFHS’s GPA system caps at 4.96 GPA because it wants students and families to balance their experiences. Dr. Millard noted that she was against rankings.

Ms. Patchak-Layman stated that the school provides balance as to what students have to take because of the graduation requirements of the school. If one can major in college in a particular course, the high school should allow the credit to be included in the GPA.

In further discussion as to how this discussion should continue, Ms. Patchak-Layman asked to see a “web” of this topic so that decisions would not be made in a void as well as an administrative recommendation to the Board of Education. Ms. Patchak-Layman asked to see a brainstorming “web” as soon as possible. Dr. Weninger stated that the administrators’ plates are full right now and he was unsure when this conversation could take place, as it was a very important subject.

Textbooks
It was the consensus of the Finance Committee members to recommend to the Board of Education that it approve the following textbooks at its regular April Board of Education meeting.

- *Little Books of Big Ideas: Pre-calculus; the Power of Functions; Calculus Concepts 1-2A*, for the Mathematics Division;
- *Food for Today*, for the Fine and Performing Arts Division;
- *C’est a’ toi!, La Catrina: El Ultimo Secreto, Spanish Mini-stories for Look, I Can Talk!* for the World Languages Division; and
- *Conceptual Physics, Earth Comm: Earth System Science in the Community, Miller & Levine Biology, Foundations Series: Miller & Levine Biology; Modern Chemistry; Living in the Environment; Investigations in Environmental Science: Units 1, 2, and 3; Earth: An Introduction to Physical Geology* for the Science Division.

Ms. Patchak-Layman asked if students would be able to purchase just the CD of a book. Mr. Prale stated that for most texts, the CD is included in the cost, but he will clarify that fact with Ms. Hill for meeting next Thursday.

Ms. Hill is working on a policy and the procedures with regard to textbooks to be typically brought in April to the Board of Education for 30-day review and a rough five-year adoption cycle, which may allow for some better planning.

Ms. Patchak-Layman appreciated the readability statistics. As she read *Calculus Concepts*, she found it harder to read than the book *Foods Nutrition*, which had the similar readability statistics. She thought the layperson would have difficulty understanding it.
Additional Instruction Matters for Committee Information/Deliberation

Ms. Patchak-Layman inquired regarding the child development practicum. Mr. Prale reported that the Administration had met with the River Forest Community Center in March and they were scheduled to continue talking about the goals next week, which is to maintain the integrity of what is in the Academic Catalog. Dr. Weninger remarked that this was could be discussed with the teacher. Ms. Patchak-Layman stated that in the Academic Catalog for this year and next year it says there will be a practicum. If there were no practicums, would the students receive an addendum regarding what the student had accomplished or give an explanation. Mr. Prale stated that the teacher would send the explanation. Ms. Patchak-Layman learned that the reason for the change in the class was not due to the increased size of the day care program nor the space change in the school. Ms. Patchak-Layman noted that the students who had signed up for the practicum were disappointed that they would not have the same experience that had occurred in previous years.

Regarding stimulus money, Ms. Patchak-Layman asked how it would be distributed and if the plans would come before the Instruction Committee meeting for discussion. Mr. Prale responded that there were two areas Title I or IDEA Plan B. The Title I total is approximately $84,000. The goals of that money are stated in stimulus guidance documents, e.g., save jobs, try some education reform practices, commitment to transparency accounting, and one time spending. The District is looking at a reading pull out program and to enhance existing reading programs because the schools must supplement, not supplant. In terms of the stimulus money in Special Education, there will be separate accounts. Dr. Weninger noted that DLT will and then it will be brought before the Board of Education.

Regarding the science curriculum and the ACT testing, Ms. Patchak-Layman’s student and his friends had not seen any questions like that before. She asked if the District looks at the testing and what students are taking and making an assessment as to whether that is coming in the curriculum. Mr. Prale stated that the science courses are on par with other areas. The ACT comparing performance with first year college students. The science test is the only where they use biology majors. That is not a fair read of the abilities of all high school students. That is a concern and would suppress scores in general. Teachers do look at the science curriculum and ACT scores. Ms. Patchak-Layman asked if teachers had samples tests to review. Can teachers say they have read this test booklet and know what questions science students are being asked? OPRFHS buys a retired ACT for sophomores and those tests are sealed, so teachers do not read the test.

There was consensus to ask the science division head to what extent do science teachers reflect on the concepts that are also reflected in the science ACT. To what extent do science teachers look at the benchmarks?

Adjournment
The Instruction Committee adjourned at 11:53 a.m. on Thursday, April 23, 2009.