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Narrative

The school's Leadership team has developed a process by which the specific language of these values and expectations will appear during instruction on a daily basis, but because the school adopted its core values and the 21ˢᵗ Century Learning Expectations late in the 2011-2012 school year the process is relatively recent and teachers are just beginning to follow this process, so as a result, there is not much direct evidence that SHS ensures consistency between a teacher's practices and the core values and 21ˢᵗ Century Learning Expectations. However, the ideas behind the school's core values and beliefs have been in existence since the opening of the school, and there *is* evidence (through observations, Learning Area meetings, Common Assessment protocols and Performance Archive Folders) that teachers' instructional practices are being examined to ensure consistency with the spirit, if not yet the letter, of SHS values and learning expectations.

SHS instructional practices generally support the 21st Century Learning Expectations by personalizing instruction, engaging students in cross-disciplinary learning and as active and self-directed learners, applying knowledge and skills to authentic tasks, and encouraging self assessment and reflection, and use technology in instruction. SHS teachers personalize their instruction on a regular basis. They contact parents to discuss student problems or successes. They act as advisors to students, mentoring the same students through all four years of their high school careers. In non-AP courses, they offer an Honors Challenge where they help a small group of interested, self-selected students delve deeper into the course content. In addition, many courses offer extensive student choice in meeting course requirements. These include classes in the Visual and Performing Arts Learning Area where students choose a play to direct in Theater, and choose projects and media in Studio Art. In Humanities courses students often choose

books based on their reading level and interests and, where appropriate, they also choose topics for essays. The World Language Learning Area begins each course with a unit centered on student interests, and the Leadership team allows students to work at their own pace. One interesting statistic from the survey results: though 90% of teachers say they personalize lessons, only 40% of students report this. Whether this is due to student misunderstanding of personalization or some actual lack of it in instruction is difficult to say.

Cross-disciplinary learning is built into several SHS courses and occurs occasionally in others. When it does occur, teachers are starting to use the 21st Century Learning Expectations rubrics to assess students. Classes with a high degree of cross-disciplinary learning include Humanities I, II and III classes, Math/Physics class, and several Fine Arts, Technology and Wellness classes. Humanities classes tie English and social studies learning together, Math/Physics takes advantage of the connection between math and physics, many Fine Arts classes use the computer as a design tool, and Wellness is a blend of physical education and science. Generally speaking, cross-disciplinary learning occurs within courses rather than across the school.

SHS teachers, across Learning Areas, consistently and extensively engage students as active participants in the learning process. Students regularly engage in independent research for projects like the Public Policy paper in Humanities III, or the Sophomore Exhibition and Senior Celebration in Advisory. They take active reading notes in a host of classes. They gather data in Math and Science classes and then test hypotheses against that data. They peer edit in all Humanities and English classes. They act out scenes from plays and novels in Spanish; they daily engage in inquiry learning in Math. The Leadership team does a disabilities project where they read *Of Mice and Men* and then work with Functional Life Skills students, and the Environmental Science class conducts a "Waterpalooza"--a raft of activities they do with elementary school students to raise awareness of water, watersheds and pollution. The students sculpt and paint and play music in Fine Arts, they make movies and make robots in Tech Arts and they practice physical activity in Wellness classes. Simply put, it is rare to see a SHS student passively receiving knowledge for even one eighty-minute block in any given week.

Ninety-four percent of SHS teachers agree that they consistently involve students in inquiry, problem-solving and higher order thinking, and the

evidence backs this up across Learning Areas. The Math Learning Area uses Core-Plus Mathematics, a curriculum designed around inquiry-based learning. There are a host of problem-solving opportunities in math, science and tech classes. In these classes students are asked to design and build self-controlled robots, model the physics of roller coasters, create and solve linear programming problems, measure lengths indirectly, and animate shapes using matrix modeling. Higher order thinking (analysis, synthesis, creation) occur regularly and frequently in all Learning Areas. Examples of these are the Senior Celebration in Advisory, the Africa Movement assessment in Humanities I, analysis of performances in band, reflections that synthesize themes in World Language, creation of a sinusoidal model for sunrise times in Math 4, and the design of roller coasters in Integrated Science I.

SHS asks students to apply knowledge and skills to authentic tasks at least a few times per year in all Learning Areas, with some Learning Areas engaging in this method much more often. In Foundations of Art, students learn about a technique and then are asked to create a piece that demonstrates this technique. In band and chorus, students practice voice and instrument technique and then apply it to ensemble performance. In Advisory, students present portfolios of their learning to parents, and twice give formal presentations on topics of their choosing (Sophomore Exhibition and Senior Celebration). Humanities students create blogs, defend positions on public policy, profile political candidates, investigate themes of geography, write college essays, and make and track stock picks. Virtually all science labs are authentic tasks, students investigate photosynthesis, calculate the height of objects using indirect methods, identify elements using emission spectra, conduct genetic research through digital gene manipulation, and study gravity and motion at Funtown, an amusement park. The Math Learning Area currently has a few authentic tasks in total, but is working on increasing this number.

While all courses ask students to self-assess and reflect on their learning at least a few times, the frequency at which this occurs varies widely. This is affirmed by the NEASC/Endicott poll, in which 73% of students agree they're asked to self-assess. Virtually all classes that require essays ask students to self-edit and to grade their own essays against a rubric before handing in the paper. And many courses, as part of a summative exam, ask students to reflect on what they've learned and/or their work habits in the class. During some classes, it's not uncommon to see a teacher ask students for informal self-assessments

("hold up 3 fingers if you get it, 2 if you're ok, 1 if you're lost"), but practices like these are not yet pervasive across the faculty. One strength of SHS in self-assessment occurs in Advisory. In this class students use a protocol to reflect on their learning twice yearly in front of their parents and advisor. Starting with the class of 2016 this is done using a portfolio that documents student progress toward meeting SHS Core Values and 21st Century Learning Expectations.

With the benefit of 1-to-1 computing at SHS, there is strong evidence from all Learning Areas that virtually all teachers integrate technology into teaching and learning. It's somewhat surprising that only 83% of the students agree they're asked to use technology in assignments, considering the classroom evidence. This evidence includes use of websites like Edmodo, Moodle, teacher-built class websites, student-built blogs, Google Docs and surveys, Survey Monkey, Shelfari, Quizlet, and EasyBib. Applications like Garageband, iMovie, iPhoto, Geogebra, CPMP Tools, Solarium, RoboLab, Keynote, Pages, LoggerPro, and Preview get regularly exercised in SHS courses. In addition, the math classes use graphing calculators to support inquiry-based learning. When SHS first got 1-to-1 computing, the school goal was for students to use their laptops for learning at least once per day. It's safe to say this goal has been reached and is consistently exceeded on a daily basis.

Across learning areas and grade levels, SHS teachers routinely adjust their instructional practices to meet the needs of each student by using formative assessments, differentiation, purposeful group learning and virtually all teachers provide additional support and use alternative strategies. The evidence shows that the majority of teachers across content areas use formative assessment during instructional time. Seventy-seven percent of staff report using a variety of formative assessments for instructional practices. Representative lessons include on-demand writing prompts followed by discussion, teacher feedback through websites like Edmodo, instruction informed by benchmark essay writing samples, lesson exit slips, and various warm-up and practice assessments that take place during class and receive immediate teacher attention.

There is strong evidence from all Learning Areas that teachers differentiate their instruction and assessments in all subject areas - 90.6% of teachers report strategically differentiating in their classrooms. Senior English students in

the Leadership team differentiate their products (such as an Amazon.com review, thesis-based essay, timeline, or main character resume). Humanities teachers provide choice books, modified tests and projects, and alternative learning materials based on skills and reading ability; math instructors provide guided notes and allow product choices in projects like Math 2/3's Flip Book; Studio Art classes are driven by choice in student products. Honors challenge, guided notes, graphic organizers, and rubrics to match varying skill levels can be found in all content areas; special education teachers also create additional opportunities for differentiation in the regular education classroom according to individual students' needs.

Opinion survey data from both teachers and students strongly supports that group learning is used regularly and in a purposeful way (100% and 82%, respectively). Literature circles, fishbowl discussions, and split room teaching are used by Humanities teachers to guide learning. Math teachers daily employ regular small groupings so students can create, defend and listen to conjectures when solving problems. World Language classes facilitate conversation and learning more difficult material with partnered activities. Many teachers use Think-Pair-Share for student processing and participation.

All Learning Areas have ample evidence that teachers provide additional support and that they use alternative strategies within the regular classroom. Students in a Humanities class might receive an essay organizer if they have trouble getting started, use a rubric to understand an assessment's requirements, or take a test modified to account for a low Lexile score. They also might use recordings or the class website to access audio versions of the current class novel to listen to as they read for increased comprehension. Research packets are provided in Humanities and some science courses to aid students who struggle to find information on their own. Struggling science students use apps to collapse the steps in an algorithm to streamline the problem solving process. Math students can use graphing calculators or applications rather than algebraic techniques, when appropriate, to solve problems. All Learning Areas provide various support mechanisms like fill-in-the-blank note-taking, graphic organizers, group learning activities, product exemplars, or teacher notes for students who have difficulty writing or processing. Strategic placement of ed techs and subjects co-taught by special education teachers give equal opportunity to students who need additional support. Many content areas make use of the Literacy Coach to address specific comprehension or reading problems. All teachers can and do stay after school to help students, the Learning Center provides 8 to 9 hours daily

of drop-in assistance with classes, and it also convenes a daily "Lunch Bunch" for underclassmen struggling to complete work. Failing juniors and seniors are put into guided academic supports, study halls with a low student-teacher ratio headed by a teacher who knows and monitors what each student should be working on.

Teachers individually and collaboratively often improve their instructional practices by using student achievement data from a variety of formative and summative assessments, examining student work, using current research and engaging in professional discourse; using feedback from a variety of sources including student, parents other teachers and supervisors is less evident. SHS teachers use student achievement data chiefly for two purposes: to improve instruction and to improve student comprehension. As to the first purpose, 81.1% of SHS teachers report using student achievement data to improve their instructional practices. This number is likely too low because all courses use the SHS common assessment protocol a few times per semester, and part of this protocol is examining the assessment results with the goal of improving instruction. The first purpose also happens on an informal basis: a teacher grades a quiz or project, realizes a better way to teach something, and makes a note in the unit plan for next year. Achieving the second purpose - improving student comprehension-- occurs in a wide variety of ways. Teachers give warm-up exercises and use the results to correct misconceptions immediately. They give quizzes or essay prompts and use the results to catalog student needs that are addressed the next class. Outside of the above-mentioned two purposes, Humanities teachers use student Lexile scores to aim appropriate reading choices at students. And both the Humanities and Math Learning Areas use PSAT and SAT data to discover weaknesses in SHS curricula and test preparation.

SHS teachers examine student work daily, even constantly. In many classrooms the students have taken over the nicely cushioned teacher chair because the teacher is never in it. Instead the teacher is pointing out algebra mistakes to a small group in math, listening to a Spanish student read a passage, or crouching by a student to assist with research on a history paper. Outside of class teachers continue this process, grading essays and art projects and quizzes, sometimes providing comments, sometimes just a grade. It's safe to say SHS

students get multiple examinations of their work every school day. At the course level, the efficacy of these examinations is difficult to tease out from the many factors influencing student progress, though there is evidence beginning to compile in the Common Assessment reflections. It will be several years before we can attribute student improvement in these assessments to teacher efficacy rather than the many lurking variables that might confound a conclusion. At the student level, a recent school-wide poll said 57% get meaningful feedback often or frequently, and only 5% said this occurs rarely.

The evidence suggests that, to improve their instructional practices, some teachers ask for feedback from students, some ask parents, some get help from other teachers, and all get feedback from supervisors in formal observations. However, documenting the use of feedback to regularly improve instruction is not yet something that permeates the culture of SHS. There is evidence of a science teacher using student feedback to add more daily practice and direction instruction in a week-long lesson. And during the school year there are many meetings in which a student, parent and teachers troubleshoot a student's performance. Weekly team meetings often focus on students, where teachers trade notes on what works and what doesn't. In Learning Area meetings teachers learn from each other about the most effective practices. Generally speaking, SHS teachers are interested in improving their craft and take feedback as an opportunity to do so. A teacher who hears from a parent that a student "zones out" moves the student away from distractions, teachers in a book group add more writing exercises in their classes after hearing from colleagues and the author, a teacher changes an assessment after a supervisor's observation. These kinds of process improvements are common, though not necessarily documented.

Ninety-four percent of SHS teachers report using current research to improve instructional strategies. For example, teachers set yearly school-wide goals focused on such topics as literacy or student engagement spur individual research to achieve these goals. The library has a professional section stocked with books on instruction, assessment, and differentiation, among other topics. Examination of best instructional practices often occurs at the monthly Learning Area meetings. The Leadership team was created due to research on alternative student programs. A Literacy Coach works to integrate research-based reading strategies across grade-levels and disciplines. The school budget reflects consistent support of teacher professional development such as reimbursement for graduate courses and performance based pay in which teachers yearly submit evidence to demonstrate their increasing expertise in instruction. Teacher book

groups focused on research-based instructional practice occur about once per school year.

Teachers at SHS engage in professional discourse focused on instructional practices in multitudinous ways. A review of the semester schedule reveals common prep blocks for co-teachers, in part so they can discuss instruction on a per course and per student basis. The common assessment protocols, run multiple times per semester for most courses, require reflection on just this topic. A semi-annual book group engages participants in improving instruction. Regular Learning Area meetings often feature the topic. The Literacy Coach writes a blog, and the principal often includes "Interesting Reading" in the weekly staff newsletter - both of these regularly feature ways to teach more effectively. In addition to this, the Literacy Coach works both with individual teachers and the faculty as a whole to boost SHS's instructional efficacy. Teachers find articles on the web, email them to colleagues and discussion ensues. Learning Areas have ad hoc summits on instruction. The Math and Science Learning Areas had a 1-day summer meeting on problem solving. Humanities teachers met for two days during the school year to discuss shifting instructional practices in light of the Common Core standards.

<u>Virtually all teachers at SHS engage substantively in the practice of maintaining and evolving their expertise within their content area.</u> They do this in Learning Area meetings, whose minutes show discussion of practices and strategies for instruction. They do it at monthly SHS faculty meetings, which often feature literacy sessions, and in Professional Learning Communities that meet semi-monthly, and in semi-annual book groups. Teachers regularly exhaust the funds the district is able to budget for their continuing education. They read and then forward research articles to each other. Instructional practices are discussed in the semi-annual "Expert Down the Hall" inservice day, where faculty share what works with each other. Perhaps the best summary is a statistic: 94% of teachers at SHS believe that they are committed to maintaining and evolving their expertise within their content areas and instructional practices.

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Executive Summary

Though Sample High School's (SHS's) Core Values and 21st Century Learning Expectations have only recently been codified, the evidence shows that instruction at the school has reflected the spirit of these documents for some time. The same can be said for SHS's adherence to most, though not all, of the NEASC criteria for effective instruction.

For instance, teachers regularly personalize their instruction by offering Honors Challenges, a choice of books to read, and a choice of media to use for research and presentations. The SHS advisory group program personalizes by building student relationships with at least one teacher in the school and also offers students avenues for open-ended projects and presentations, authentic tasks like writing a resume, and, twice-yearly, reflecting on their learning at a student-led conference. Higher-order thinking, active learning, and authentic tasks appear often in other classes as well. Math uses an inquiry-based curriculum, and students design robots in Tech classes and research and defend a position in the Humanities III Public Policy Paper.

SHS's 1-to-1 computing environment makes the integration of technology a strength at the school. In addition, it fosters cross-disciplinary learning to an extent not possible without computers. For instance, students in Audio Production can create musical scores, record them and then analyze and adjust waveform properties in Garageband. Math/Physics students can collect data from motion detectors, graph it, and test conjectures about the relationship between position and velocity.

 SHS teachers use a bevy of instructional strategies to reach all learners. Formative assessments like writing prompts or warm-ups, group learning via literature circles or small math teams, modification of tests, use of graphic organizers, rubrics, exemplars, guided notes, the placement of special education teachers and ed techs within certain classes--all of these are utilized to make learning happen as often as possible for as many as possible. In addition, services and programs like guided academic support, the Leadership team, "Lunch Bunch" and the Learning Center maximize opportunities for students to succeed.

SHS teachers improve their instruction in myriad ways. The semester schedule, as much as possible, provides common prep blocks for teachers teaching the same course, and for 9th and 10th grades, for teachers teaching the same students. Teachers meet during these blocks to troubleshoot lessons, pass on effective teaching strategies, and provide feedback to each other. They use the Common Assessment protocol to reflect on how to make their lessons more effective. Through student-led conferences and other ad hoc meetings, teachers glean helpful instructional feedback from parents. Teachers also take advantage of blogs, articles, emails, books and college courses to improve their instruction.

With all of these strengths, the evidence indicates that instruction at SHS is close to Exemplary on the NEASC rating guide. However, at this time there is insufficient evidence that teachers *collaboratively* improve their instruction using the results of *formative* assessments. For this reason, SHS judges its instruction to be ACCEPTABLE.

Strengths:
- The Advisory program guarantees, as much as is practically possible, that each child has a personal relationship with at least one teacher, and many courses offer choices for students to meet course standards
- Student are constantly required to collaborate, write, make conjectures, create, perform, present and read across the Learning Areas
- Each Learning Area ensures students travel through all levels of Bloom's Taxonomy multiple times per semester
- The Advisory portfolio, still in its early years of implementation, requires students to regularly update and present portfolios that document their progress over four years toward meeting 21st Century Learning Expectations and adherence to the Core Values
- Technology has been thoroughly integrated into the learning process through MLTI and other initiatives
- Strategic differentiation of assessment and instruction maximizes student learning
- Teachers assign instructional groups purposefully to promote effective collaboration and student learning
- The in-house instructional coach helps teachers with reading strategies, differentiation, vocabulary building, and formative assessments
- The course schedule provides additional support and alternative strategies, when needed, to help students learn, particularly classes co-taught by special education teachers and guided academic supports for struggling upperclassmen

- Common Assessment protocols ensure a) students in different classes are asked to meet the same standards, b) teachers collaborate to figure out what worked and what didn't in a unit, and c) a way forward to measure the efficacy of the tweaks teachers make to improve instruction
- The faculty produces a consistent, thought-provoking, enthusiastic, and loud buzz in Learning Area meetings, faculty meetings, blogs, professional development share-outs, graduate courses, book group discussions and over email lines. This conversation centers on how best to use current research to improve instruction

Needs:
- Develop and implement a process that examines teachers' instructional practices for explicit consistency with the school's Core Values and 21st Century Learning Expectations
- Increase cross-disciplinary learning in part by ensuring that students are learning and being assessed on 21st Century Learning Expectations that are not the "specialty" of a course (i.e. look for and create opportunities for student writing to be assessed in more than just Humanities courses)
- Continue to examine the balance between depth and retention of learning versus coverage of standards
- Provide more frequent opportunities for students to provide feedback to teachers about their instruction. Put in place a process that requires
- Teachers' reflection on the survey results
- Follow-up by the teachers to see if any instructional changes made were effective.
- Collaborate with other teachers to improve instruction using the results of formative assessments