A.3 Program of Instruction

a. Curriculum Development

The Pensar Academy Curriculum Team will use the Arizona College and Career Readiness Standards (ACCRS) to outline skills and content for grade level student proficiency. Keeping the ACCRS as the desired outcomes, the Curriculum team will utilize Backward Design to make a determination of the desired evidence of learning, both through formal and informal assessments. Last, the Curriculum team will develop a scope and sequence that logically scaffolds.

The Pensar Academy curriculum will be monitored for pacing, rigor, and effectiveness through classroom observations, stakeholder surveys, and student achievement data. Adjustments to the curriculum will occur quarterly based on these data sources.

Pensar Academy's curriculum will include the following core subjects:

<u>English Language Arts:</u>

Aligned to the ACCRS, the English Language Arts (reading, writing, and speaking) will be taught for 90 minutes per day, 30 minutes of which will be solely reserved for leveled reading classes. The remaining 60 minutes will be comprised of an ELA instructional period that incorporates reading, writing, and speaking using grade level strategies. The Pensar Academy ELA instructional materials will include:

- The Scholastic Reading Program. This Program provides individual students with a simplified system to track reading growth. Students are assessed using the Scholastic Reading Inventory online assessment and given a Lexile score. This Lexile score can be used to determine what grade level a student is reading at, as well as what titles of books to read to show growth. Assessments are given monthly. Students will be assigned books 50-100 points above their Lexile ranges and within their personal interests.
- A reading intervention program, such as SRA or Read Naturally, that is systematic and logically sequenced to provide students with missing phonics to increase fluency and comprehension.
- The Study Island Online Program. With an English Language Arts curriculum set by the ACCRS, Study Island utilizes engaging technology to deliver self-paced, individualized learning. Study Island also has instructional resources available for the classroom teacher to instruct whole group. This program will allow for students to practice grammar skills, reading skills, and writing skills that link to whole group lessons. Study Island will be the practice and extension for our students in Level II of the Pensar Academy Instructional Rotation Model.
- Teacher generated units. The Pensar Academy Curriculum Team will lay out the daily learning objectives on an academic calendar based on the Backward Design from the ACCRS. The delivery of direct instruction of the daily objective will be formulated by the classroom teacher. The teachers at Pensar Academy will create a Lesson Plan Collection to share resources and activities. The creation of the lesson plan resources will be pulled from online resources, such as Flocabulary, Schmoop, and Teacherpayteachers.

The English Language Arts objectives will be embedded into the Social Studies block in a Project Based Learning activity.

Social Studies: Aligned to the ACCRS, Social Studies will be taught for 60 minutes per day utilizing a Project Based curriculum. The Pensar Academy Social Studies curriculum will include the Political, Economic, Geographic, and Social aspects of society. The instructional materials will include:

- Project Citizen. Project Citizen is a middle school program that provides students with the opportunity to navigate through the layers of government to shape public policy. With Project Citizen, students identify a community problem, analyze current policies, construct alternative policies, and devise action plans. The culminating projects will be entered into the Project Citizen annual competition.
- Project Based Learning (PBL). Students will be presented with real world questions and challenges to resolve. The Buck Institute for Education (BIE) will provide project based activities and Professional Development ideas for Pensar Academy staff and students. The BIE outlines eight essential components to PBL:
    1. The teaching of significant content.
    2. The application of the 21st Century skills of collaboration, communication, creativity, and critical thinking.
    3. The engagement of students in in-depth inquiry.
    4. The framing of student research through a driving question(s).
    5. The identification of the need to know content and skills.
    6. The allowance of personal choice.
    7. The sharing of findings with a public audience.
- Teacher Generated Lessons. The Pensar Academy Curriculum Team will lay out the daily learning objectives on an academic calendar based on the Backward Design from the ACCRS. The delivery of direct instruction of the daily objective will be formulated by the classroom teacher. The teachers at Pensar Academy will create a Lesson Plan Collection to share resources and activities. The creation of the lesson plan resources will be pulled from online resources, such as Flocabulary, Schmoop, and Teacherpayteachers.
- Junior Scholastic. The Junior Scholastic program is comprised of current events and social studies articles for middle school students. The Junior Scholastic program is aligned to the ACCRS with ELA standards including vocabulary extensions, paired texts, and source work.

Math: Aligned to the ACCRS, math direct instruction and online learning will occur in combination for 60 minutes per day. The Pensar Academy math curriculum will be designed with a Project Based component for students to apply daily mastered objectives in real-world scenarios for 50 minutes per day. Math instruction will utilize the following curricular materials:

- Teacher Generated Lessons A concrete to semi-concrete to abstract continuum.
- Number Talks: The use of interactive language and number talks will be written in constructive responses and also shared in small group.

- Study Island Online Program. With a Math curriculum set by the ACCRS, Study Island utilizes engaging technology to deliver self-paced, individualized learning. Study Island also has instructional resources available for the classroom teacher to instruct whole group. This program will allow for students to practice math problem solving skills, calculation skills, and application skills that link to whole group lessons. Study Island will be the practice and extension for our students in Level II of the Pensar Academy Instructional Rotation Model.
- Khan Academy. Aligned to the Common Core, Khan Academy is a free online learning program that allows for a high degree of differentiation in math and science. Khan Academy will be utilized as an additional source for practice and extension in Level II of the Pensar Academy Instructional Rotation Model. In addition, Khan Academy materials will be used to aide teachers in whole group lesson delivery.

Science: Aligned to the ACCRS, whole group Science instruction will be taught for 40 minutes per day. New scientific theories, research skills, and data analysis will be taught using the direct instruction model on a daily basis. Each scientific lesson will be extended in a lab that is problem based for students to construct their own learning. In order to understand the complexity of Science, our students will be active researchers, theorists, and reflective experimenters. Science will utilize the following curricular materials:

- Project Based Curriculum (PBL). Students will be presented with real world questions and challenges to resolve. The Buck Institute for Education (BIE) will provide project based activities and Professional Development ideas for Pensar Academy staff and students. The BIE outlines eight essential components to PBL:
    8. The teaching of significant content.
    9. The application of the 21st Century skills of collaboration, communication, creativity, and critical thinking.
    10. The engagement of students in in-depth inquiry.
    11. The framing of student research through a driving question(s).
    12. The identification of the need to know content and skills.
    13. The allowance of personal choice.
    14. The sharing of findings with a public audience.
- Scholastic Science World. This program provides current event discoveries in the fields of biology, chemistry, physics, engineering, and earth sciences. The lesson plans are aligned to the ACCRS and are available electronically.
- Teacher Generated Lessons. The Pensar Academy Curriculum Team will lay out the daily learning objectives on an academic calendar based on the Backward Design from the ACCRS. The delivery of direct instruction of the daily objective will be formulated by the classroom teacher. The teachers at Pensar Academy will create a Lesson Plan Collection to share resources and activities. The creation of the lesson plan resources will be pulled from online resources, such as Teacherspayteachers.com and Amazon.

Elective Classes:

Life Skills: The curriculum for the Life Skills class will be designed by the Director of Student Learning and the Director of Operations.

- Personal Prep. Pensar Academy will work with each student toward maximizing success through systemic thinking, metacognitive strategies, and proactive planning. In this course, students will learn motivational, organizational, and academic strategies to maximize success inside and outside the classroom. Students will learn how to set goals and plan according to Backward Design.
- Career Prep. Pensar Academy will work with each student to utilize Backward Design in his/her career trajectory to ensure more career choices are unlocked. In this course, students will take career aptitude and interest inventories, explore career options through research and interviews, and trajectory plan for a career of their choice. The culminating project will be a project based presentation on a chosen career for a Career Symposium showcased at the Capstone Celebration of Learning Night.
- Education Prep. Pensar Academy will work with each student to utilize Backward Design in his/her academic trajectory to ensure that post-secondary education is a viable option. In this course, students will learn the processes of post-secondary education, such as program choices, enrollment requirements, and logistical requirements. Logistical requirements will encompass how to finance post-secondary education, how to maximize resources, and what post-secondary degrees/certificates open which employment opportunities. The culminating project will be a project based presentation on a chosen post-secondary school for a Post-Secondary Symposium showcased at the Capstone Celebration of Learning Night.
- Economic Prep. In this course, students will study financial literacy. Financial literacy will include responsible budgeting techniques, maximizing the consumer credit system, and navigating through financial institution services. The culminating project will be a project based presentation on a chosen finance topic for a Financial Symposium showcased at the Capstone Celebration of Learning Night.

Chess. The curriculum for the chess program will be the Chess Magnet School Curriculum, a free online program developed by Mr. Harlan Lee, a professional educator and chess master. The Chess Magnet School Curriculum is driven by daily lessons that scaffold and advance each student on an individual basis. This program will be delivered by the same teacher who delivers Physical Education.

Physical Education. The curriculum for Physical Education will be designed by the Director of Student Learning and the Director of Operations.

English Language Learners. For identified ELD students, an Individualized Language Learner Plan will be constructed that incorporates:

- Individual Growth Plans (IGP) that outline the assessment scores, growth, and areas of need for each students and be addressed during Goal Setting/Math Foundations period.
- Intervention Services. Students will be services according to need into Leveled Reading Classes and Math Foundation Classes.
- Response to Intervention (RTI) embedded into the instructional model. All students will partake whole group instruction with an objective driven lesson with an end of lesson assessments. If a student does not meet mastery (80% correct), he/she receives small group instruction using alternative instructional methodologies.
- Structured English Immersion (SEI). Pensar Academy will abide by the state statutes for all students who are identified English Language Learners (ELL).

- Sheltered Instructional Operation Protocol (SIOP). The SIOP Model provides assists teachers in delivering lessons that involve multiple input sources in addition to language, such as visual and kinesthetic, to make the content more comprehensible to English Language Learners.
- Universal Design for Learning (UDL).

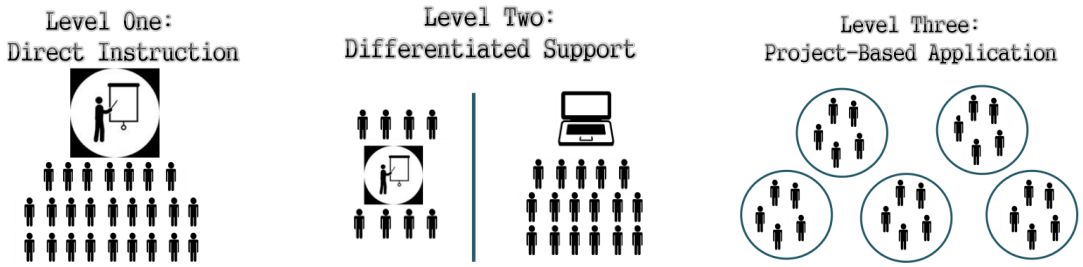
Special Education Learners. For identified students in need of Special Education services, an Individualized Plan will be implemented via:

- Individual Growth Plans (IGP) that outline the assessment scores, growth, and areas of need for each students. Data driven instruction
- Intervention Services. Students will be placed according to need into Leveled Reading Classes and Math Foundation Classes. Students will be re-assessed every 30 days for placement.
- Response to Intervention (RTI) embedded into the instructional model. All students will partake whole group instruction with an objective driven lesson with an end of lesson assessments. If a student does not meet mastery (80% correct), he/she receives small group instruction using alternative instructional methodologies.
- Universal Design for Learning (UDL). Math instruction (Concrete, Semi-Concrete, Abstract)
- Assistive Technology: Students will have access to low tech through high tech assistive technology to access the curriculum.
- Best Practices: Teachers will implement best practices such as graphic organizers, cooperative learning, and blended learning.
- Multi-sensory learning: Kinesthetic, Visual, Tactile, Auditory.
- Accommodations: Student's IEP's will reflect the tools necessary to access grade level curriculum through a variety of learning modalities.

b. Methods of instruction (formative assessment strategies, alignment to the CCSE)

Pensar Academy will utilize a Blended Learning Rotational Model to deliver the curriculum highlighted in Section A.3.a. The Rotational Model is comprised of three levels. Each level employs a different method of instruction: Direct Whole Group Instruction, Online Learning, Targeted Small Group Intervention, and Project-Based Learning. Each of these methodologies will be delivered in a blended learning model, using teacher and computer to maximize instructional time and individualize the education for each student. Student data determines movement through the levels with the necessary support provided for students aligned with the Response to Intervention continuum *(See A.3.b Illustration 1)*.

A.3.b Illustration 1: Pensar Academy's Blended Learning Rotational Model



Level One of the Rotational Model is comprised of teacher-led direct instruction to the whole group. Every student begins at this level.

Our Direct Instruction Model will be based on Madeline Hunter's Model of Mastery Learning which will serve as a framework, not a prescribed recipe for teaching within the classroom. Per Hunter's findings, there are eight essential elements for mastery learning:

- An anticipatory set/hook to build background.
- A clearly stated objective.
- Input from an external source: teacher, discovery, reading, listening, etc…
- Modeling of the objective by the teacher.
- Checking for student understanding.
- Guided Practice with teacher support.
- Independent Practice without teacher support.
- Cognitively closing the lesson through checking for understanding.

Our Teachers will incorporate these elements into each lesson. These elements are the "what" elements to planning, with the latitude for the teaching staff to formulate their "how" as tradecraft. We chose this model for direct instruction not only because it is research backed, but also because it allows for our students to be exposed to different personalities and styles to receive information. Direct instruction will integrate a minimum of one new objective in each core content area (Math, Science, Language Arts, and Social Studies) each school day. Following each lesson, each student will be given an end-of-lesson assessment to determine whether he/she has mastered the objective. At Pensar Academy, student mastery is set at an earned score of 80% or higher. The student score or data drives his/her placement in Level Two of our Rotational Model.

Level Two of the Rotational Model is driven by data, more specifically student mastery of the objective as demonstrated on the end-of-lesson assessment. Students that display mastery will partake in independent online learning for extension and practice. Students that scored 0-79% mastery will move to small group intervention.

Online learning: As educational trends continue to spiral, it is estimated that by the year 2019, 50% of all high school courses will be delivered online in one way or another.[1] Under a blended learning model, our students will utilize the computer to learn online through research backed programs. Students benefit from Online Learning through:

- Immediate feedback on assignments to determine mastery level.
- Individualized rigor constantly challenging and pushing them to grow. The content is driven by their individual Zones of Proximal Development (ZPD).
- Immediate identification of areas of need and remediation in a small group or on a 1:1 basis with an educator.
- Exposure to technology-embedded learning.
- Differentiated content to meet the needs of all learners. (UDL)

[1] Christensen, C., Johnson, C., & Horn, M. (2010). Disrupting Class. Mc-Graw-Hill.

- Maximization of instruction time, as students move to next lesson when finished without waiting for peers. [2]

The sense of urgency to provide our students with exposure to this learning model is high. According to the California Learning Resource Network, 19% of elementary district and charters engage in online learning, whereas 73% of high schools utilize it.[3]

Small Group Intervention: Aligned to the Response to Intervention Model (RTI), our small group intervention groups are focused on providing academic support to our students in a proactive and immediate manner to succeed, not "wait to fail."[4] In small group intervention, the teacher differentiates through an alternative mini-lesson to present the objective in a new way to a smaller audience. This mini-lesson incorporates concepts from the Universal Design for Learning (UDL) model.

Level Three of the Rotational Model takes the mastered objectives and embeds them into Project Based Learning opportunities. When a student learns an objective, he/she learns how to apply it in a myriad of contexts utilizing Project Based Learning (PBL).

In PBL, students become constructivists of their own learning through student centered projects, succinctly quipped by John Dewey as "learning by doing." Project based learning provides our students with the opportunity to:

- Address real world issues.
- Collaborate with peers as a co-learner, teammate, and leader.
- Actively engage students.
- Cross-apply of skills from one project to another.
- Identify the connectivity of subject areas and understanding that core subjects are not mutually exclusive, reflective of the common core standards premise.
- Prepare students with the skills necessary in a 21st century workforce: communication, collaboration, problem solving, and accountability.
- Utilize technological tools to research, collect, and present findings.
- Become outcome oriented, not just a poster boards with some visuals, but a comprehensive solution or information that has a purpose.[5]

c. Summative Assessment Plan (Mastery of Standards, Educational Philosophy, Instruction aligned)

Assessment will be at the center of our growth mindset at Pensar Academy. Student data will be analyzed on an individual basis for their Student Growth Plans and on a larger group basis for curricular gaps. We will measure our productivity and the success of our program through quantitative and qualitative assessments.

Rubrics. A majority of the qualitative assessment at Pensar Academy will involve rubric scoring to measure performance expectations for an assignment. The key to using a rubric lies in ensuring that these expectations are clear, explicit, and range in complexity. For example, in a PBL exercise students must create a society using the PEGS. There are listed artifacts that need to be present under each

[2] Christensen, C., Johnson, C., & Horn, M. (2010). Disrupting Class. Mc-Graw-Hill.
[3] E-learning census report. www.clrn.org/census/
[4] Donelson, W. & Donelson, R. 2014. Implementing Response to Intervention. Shell Education.
[5] www.bie.org

category: political, economic, geography, and social issues. The number of completed artifacts and a description of the quality markers assist students in completing the project at the highest level. They begin with the end in mind. This assessment will be used as a monitoring formative tool, as well as a summative tool.

End of Lesson Assessment. In order to determine mastery of each objective based on the scope and sequence in direct instruction, there will be an end-of-lesson assessment given daily. The classroom teacher will monitor and check for understanding with each student. Those students who do not meet the 80% or higher accuracy rate on this assessment will gain clarification and relearn the objective in a small group led by the classroom teacher. Those who have demonstrated mastery will continue to independently scaffold and increase their depth of knowledge with the online learning in the core subject areas of ELA and math.

Embedded Assessment. In many instances, a teacher may want to monitor more than one objective in an assignment. For example, a student may write a paper and receive a rubric score, but also receive a separate score for citing footnotes within the text.

Portfolios. Portfolios provide growth artifacts over time. For example, students may create a writing portfolio scored by rubric. Some assessments may be informally embedded in lessons.

Formative Qualitative Assessments. At the end of each unit, an assessment that aligns to the covered content of the scope and sequence will be given. An analysis of the individual and comprehensive group scores will drive the intervention targeting to ensure that all students are mastering all objectives. An additional area that will be a focus for our students is in the areas of reading comprehension and decoding. All students will be screened using the Scholastic Reading Inventory and the Basic Reading Inventory to determine literacy skills and placement in leveled reading classes. These assessments will be given monthly to all students one standard grade level below and bi-monthly to those students who are at grade level or above. The reading program SRA will be used to bring students decoding and comprehension skills up to grade level.

Summative Qualitative Assessments. A quarterly benchmark will be given every 9 weeks of instruction that aligns to the scope and sequence of the content covered comprehensively. An analysis of the comprehensive data will reveal circular gaps that can be addressed and re-taught to ensure each student has received the necessary curriculum and content. An analysis of individual student data will identify areas that the individual student intervention needs. In addition, external tests, such as the AZ Merit will also measure annual proficiency and growth.

d. Aligned Program of Instruction to Performance Management Plan

The Program of Instruction outlined above aligns to the Performance Management Plan.