**ORIGINAL RESEARCH ARTICLE**                    **OPEN ACCESS**

# BLENDED LEARNING ACADEMIES – CONNECTING LITERACY & TECHNOLOGY

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## ARTICLE INFO

## ABSTRACT

The mission of Blended Learning Academies is to foster, support, and promote excellence in high school, targeting at-risk students using a blended model; to enhance student engagement in secondary education; to encourage adoption of innovative teaching and learning practices that meet the needs of today's diverse student population; and facilitate student development and academic success that encourages 21st century learning (www.blendedacademies.org). Blended Learning Academies is a school that demonstrates and models the latest in effective blended learning practices.
Blended Learning Academies:

- Supports face-to-face and blended education for secondary students;
- Provides increased access to today's diverse 9 -12 student population offering programs for career placement, advancement, transition, or advanced studies;
- Integrates innovative teaching practices using technology-enhanced, blended, and fully online courses;
- Engages students in the learning process as opposed to traditional educational structures;
- Utilizes best practices in project-based learning in a real-world focus as a context for the learning process;
- Incorporates innovative 21st Century Skills: communication, collaboration, critical thinking & problem solving.

The Academy's goal is to focus on the students and have them take ownership of their learning, guided by highly qualified teachers in their content fields. Student success will be based on individualized support; appropriate, challenging education; and collegial environment, every child can reach his or her potential. Where "traditional" school districts utilize "sit and click" software for credit recovery, the Academy model infuses educators into the learning environment to act as motivators and educational guides. During recent strategic planning between administration and the school board, two key areas of curricular focus have arisen, the first technology integration and the second literacy instruction. This paper will address how to blend both effectively.

## INTRODUCTION

The school will use inquiry/project-based instructional strategies to create an anywhere, anytime, any place learning environment where students "don't just solve problems, they find problems to solve." Students will complete cross-curricular projects that help them develop what Dr. Tony Wagner of Harvard University calls the "new world survival skills:"

1. Critical thinking and problem solving
2. Collaboration across networks, influencing, and leadership

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3. Agility and adaptability
4. Initiative and Entrepreneurialism
5. Effective oral and written communication
6. Accessing and analyzing information (Wagner, 2016)

Students will use these new skills to earn a regular high school diploma by satisfactorily completing the Michigan Merit Curriculum (MMC) (Michigan Merit Curriculum High School Graduation Requirements, 2014):

To determine whether the Academy is demonstrating measurable progress in preparing students academically for success in college, work and life, Ferris State University, Blended Learning Academy's authorizer, will assess the

Academy's performance using the following measures of student growth and achievement.

| Michigan Merit Curriculum<br>High School Graduation Requirements (18 credits) |
| --- |
| **ENGLISH LANGUAGE ARTS (ELA) - 4 Credits** |
| Proficiency in State Content Standards for ELA (4 credits) |
| **MATHEMATICS - 4 Credits** |
| Proficiency in State Content Standards for Mathematics (3 credits)<br>Proficiency in district approved 4th mathematics credit options (1 credit) (Student must have a math experience in their final year of high school.) |
| **ONLINE LEARNING EXPERIENCE** |
| Course, Learning or Integrated Learning Experience |
| **PHYSICAL EDUCATION & HEALTH - 1 Credit** |
| Proficiency in State Content Standards for Physical Education and Health (1 credit); Or<br>Proficiency with State Content Standards for Health (1/2 credit) and district approved extra-curricular activities involving physical activities (1/2 credit) |
| **SCIENCE - 3 Credits** |
| Proficiency in State Content Standards for Science (3 credits); Or beginning with the class of 2015:<br>Proficiency in some State Content Standards for Science (2 credits) and completion of a department approved formal career and technical education program (1 credit) |
| **SOCIAL STUDIES - 3 Credits** |
| Proficiency in State Content Standards for Social Studies (3 credits) |
| **VISUAL, PERFORMING AND APPLIED ARTS - 1 Credit** |
| Proficiency in State Content Standards for Visual, Performing and Applied Arts (1 credit) |
| **WORLD LANGUAGE - 2 Credits**<br>**(Effective beginning with students graduating in 2016)** |
| Formal coursework OR an equivalent learning experience in grades K-12 (2 credits); Or Formal coursework or an equivalent learning experience in grades (1 credit) and completion of a department approved formal career and technical education program or an additional visual, performing and applied arts credit (1 credit) |

**Goal #1: Student Growth:**

| Students | Metric | Targets |
| --- | --- | --- |
| Grades 9-10: Blended Learning Academy students who are enrolled and in attendance for two consecutive testing sessions | Gains made by students in reading and math as measured by the RIT score on MAP by NWEA® | Students demonstrate significant gains between two consecutive MAP by NWEA® test sessions. (Ultimately achieving set growth target) |

**Goal #2: Student Achievement:**

| Students | Metric | Targets |
| --- | --- | --- |
| Grades 9-12: Blended Learning Academy students who are enrolled and in attendance for at least one semester. | Credits recovered based on enrollment audit towards earning a high school diploma in line with the Michigan Merit Curriculum. | *Students, at the end of each semester, will have closed the gap between credits earned and credits needed for graduation.* |

**Recent Measurement: Northwest Evaluation Association (NWEA) Achievement Data from Spring 2016**

|  |  | Reading | Math |
| --- | --- | --- | --- |
| 9* | Fall Mean RIT | 204.6 | 205.2 |
|  | Fall Achievement Percentile | 2 | 1 |
|  | Spring Mean RIT | 205.8 | 212.3 |
|  | Spring Achievement Percentile | 2 | 2 |
|  | Growth Achieved | 1.2 | 7.1 |
|  | Growth Percentile | 37 | 99 |
| 10 | Fall Mean RIT | 201.3 | 213.0 |
|  | Fall Achievement Percentile | 1 | 5 |
|  | Spring Mean RIT | 203.2 | 217.4 |
|  | Spring Achievement Percentile | 2 | 8 |
|  | Growth Achieved | 1.9 | 4.4 |
|  | Growth Percentile | 55 | 85 |
| *11* | *Fall Mean RIT* | *218.0* | *220.4* |
| *\** | *Fall Achievement Percentile* | *28* | *11* |
| *.* | *Spring Mean RIT* | *215.8* | *223.3* |
|  | *Spring Achievement Percentile* | *20* | *14* |
|  | *Growth Achieved* | *-2.2* | *2.9* |
|  | *Growth Percentile* | *NA* | *NA* |

Based on the data obtained from the Spring 2016 Northwest Evaluation Association (NWEA) Assessment, the follow two initiatives have been introduced to impact student learning in a positive way, including the integration of technology in the classroom to improve student achievement.

**Initiative #1: Provide a safe environment/climate through the use of Positive Behavioral Intervention Supports. Provide a focused curriculum and high expectations with high quality classroom instruction.**

Actions: Practices, classroom setup, consistent materials, coherent instruction with few interruptions. Resources used strategically, all school personnel engaged with instruction. Meetings focused with teaching and learning. Targeted Professional Development for all staff. Develop exemplars of good work, display student work that meets standards. Analysis of data to increase student achievement.

**Initiative #2: Implement a Multi-tiered Systems of Support for all students with literacy, mathematics, and behavior.**

Actions: Develop and implement a comprehensive intervention model. Develop the capacity of teaching staff to design and implement effective instruction for all students to ensure student academic and behavioral growth.

**Literary Review and Reflection**

In order to guide the teachers on how to integrate digital technology into literacy instruction, the Technology Integration Planning Cycle is being utilized (Hutchison, 2014). This tool can be used effectively to integrate technology that are consistent with Common Core Standards (Hutchison, 2014). To guide the understanding of the knowledge that teachers must apply when integrating digital technology into instruction, Hutchison and Woodward considered the Technological Pedagogical Content Knowledge (TPACK) framework designed by Mishra and Koehler (2006) as a starting point for the instructional planning cycle (Hutchison, 2014). The TPACK framework highlights the types of knowledge, and the interplay among them, that allow teachers to interpret curricular standards and goals and make that content accessible to learners through their instruction and integration of digital technology (Hutchison, 2014).
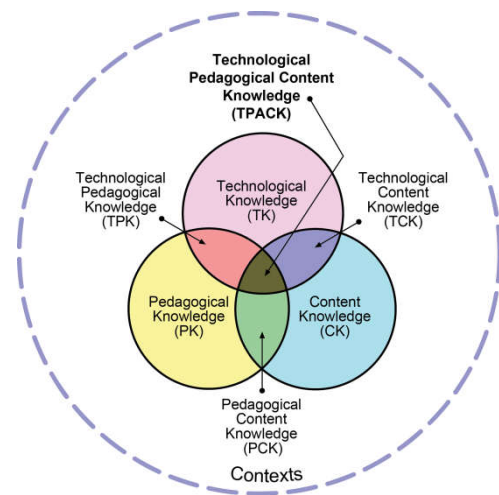


*From: tpack.org*

The technology integration planning cycle for literacy and language arts has seven critical elements that influence teachers' instructional planning involving digital technology and the success or failure of the resulting classroom instruction (Hutchison, 2014).
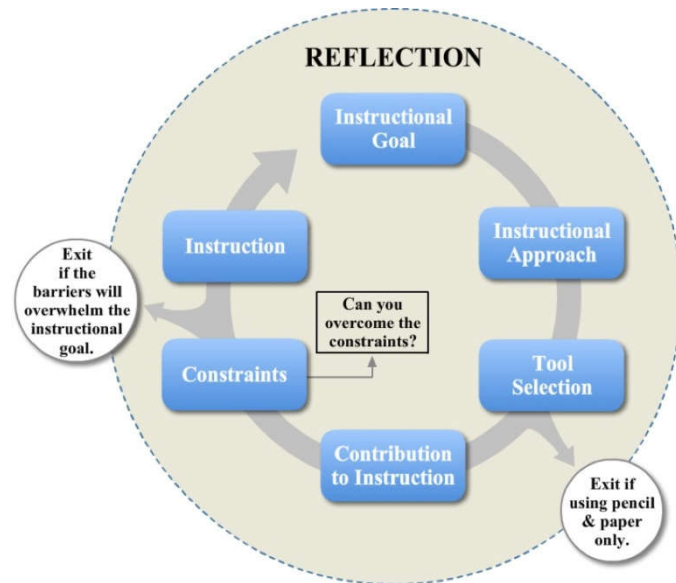


As shown above, there are seven key elements to the TIPC:

- Ability to identify and adhere to a clear *instructional goal* when integrating digital technology
- Ability to identify an appropriate *instructional approach* for the instructional goal
- Ability to select appropriate digital or non-digital *tools* to support instruction
- Ability to foresee how the selected tool can *contribute to the instructional goal*
- Ability to identify the potential *constraints* of using the tool to determine whether they can be overcome
- Ability to understand how the *instruction* will need to be delivered or altered due to the use of the selected tool
- Ability to *reflect* on the resulting instruction and make changes/learn more about the instructional tools as needed (Hutchison, 2014)

Once the instructional goal is established and an instructional approach is selected, teachers will draw on their TPACK to consider the type of tool best used to accomplish the instructional goal with the desired approach (Hutchison, 2014). If this tool is a digital tool, then teachers will begin to think specifically about how the tool may contribute to instruction (Hutchison, 2014). Classroom illustration – Ms. Thomas must determine how or if she can use iPads to support her instructional goals. First she must decide if the iPads should be used as a tool to search for information or if she should use apps intended for specific functions such as organizing information, providing practice on particular topics, listening to recorded readings, or responding to texts through audio or video recording, writing, or drawing (Hutchison, 2014). Using the technology integration for literacy planning cycle in conjunction with TPACK will provide teachers with options for effective infusion of technology in the classroom, however digital tools, like all tools used for learning, have limitations, and the model allows teachers to use a Deming "Plan, Do, Study, Act" continuous improvement process to improve on

their instruction. Josephine Ryan and Anne Scott provide essential components needed to set up online discussions to provide learning (Ryan, 2008). The first is to provide user-friendly technology, the second is to engage students in appropriate tasks, the third relates for assessment considerations, the fourth is to provide "democratic spaces," the fifth avenues for students to tell personal narratives, sixth is to monitor the online discussions and provide timely feedback, the final step is to examine online learning environments (Ryan, 2008). These seemingly "common sense" techniques will provide teachers with a framework to operate within when integrating technology to develop literacy teachers (Ryan, 2008). Jamie Colwell from Old Dominion University and Amy Hutchison from Iowa State University explored supporting teachers in integrating digital technology into language arts instruction to promote literacy and came up with an extensive list of available tools to support reading comprehension (Colwell & Hutchison, 2015). Multiple tools to support reading compression, such as iPads, e-readers, online games and podcasts were identified (Colwell & Hutchison, 2015). These tools provide an array of approaches to digitally promote reading comprehension (Colwell & Hutchison, 2015). Digital tools to promote discussion include blogs and discussion boards, digital tools to encourage collaborative learning include wikis and digital video production tools (Colwell & Hutchison, 2015). The use of digital technology supported literacy instruction and development in the following ways: a) students wrote for more authentic reasons; b) inclusion of oral language activities using digital recording devices supported students' idea development and writing; c) students had increased opportunities to interact and collaborate with peers, critically evaluate each others' work, and consider multiple perspectives; d) students were encouraged to think about traditional content in new ways; and e) digital tools provided insight into students' reading behaviors and comprehension (Colwell & Hutchison, 2015).

## Summary and Recommendations

By providing the teachers at Blended Learning Academies with professional development on the Technological Pedagogical Content Knowledge (TPACK) framework, utilizing the technology integration planning cycle for literacy and language arts, and applicable digital tools mentioned above, technology can be infused in the classroom to improve student achievement and gains will be noted during the next Northwest Evaluation Association (NWEA) assessment cycle. Students today are not only familiar and comfortable with technology, they are demanding teachers blend it with the traditional classroom. Continued professional development and the integration of a new online learning curriculum will assist in increasing Northwest Evaluation Association (NWEA) assessment scores.

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