

## Characteristics of Highly Effective Teaching and Learning Common Characteristics of HQTl with Technology

### Section One: Learning Climate

**Learning Climate:** a safe environment supported by the teacher in which high, clear expectations and positive relationships are fostered; active learning is promoted

#### **Teacher Characteristics:**

**A- Teacher creates learning environments where students are active participants as individuals and as members of collaborative groups. The teacher:**

- 1) uses digital tools to facilitate collaborative learning.
- 2) designs online spaces and opportunities for students to collaborate online with others within/outside the classroom.
- 3) collaborates with students, peers, parents, and community members using digital tools and resources to support student success and innovation.
- 4) creates an environment that models the seamless use of technology for teaching and learning.

**B- Teacher motivates students and nurtures their desire to learn in a safe, healthy and supportive environment which develops compassion and mutual respect. The teacher:**

- 1) make adjustments to the learning environment to assure healthy and safe use of technology.
- 2) advocates, models and teaches digital citizenship (digital etiquette, digital communication, digital literacy, digital access, digital commerce, digital law, digital rights and responsibilities, digital health and wellness and digital security).

**C- Teacher cultivates cross cultural understandings and the value of diversity. The teacher:**

- 1) develops and models cultural understanding and global awareness by engaging with colleagues and students of other cultures using digital collaboration tools.
- 2) customizes and personalizes learning activities to address students' diverse learning styles using digital tools and resources.
- 3) uses digital tools to bring students face-to-face with distant peers, building cultural literacy and global awareness.

**D- Teacher encourages students to accept responsibility for their own learning and accommodates the diverse learning needs of all students. The teacher:**

- 1) addresses the diverse needs of all learners by providing equitable access to appropriate digital tools and resources.
- 2) provides a variety of digital tools to make the content accessible to address the learning needs of all students.

3) develops technology-enriched learning environments that enable all students to pursue their own educational goals, manage their own learning, and assess their own progress.

**E- Teacher displays effective and efficient classroom management that includes classroom routines that promote comfort, order and appropriate student behaviors. The teacher:**

- 1) uses digital tools to manage an effective classroom.
- 2) draws on the technical expertise of their students and gives them roles in managing the technology.
- 3) helps students learn the content of the curriculum while gaining technology skills.
- 4) organizes the classroom to facilitate student use of technology and instructional focus.

**F- Teacher provides students equitable access to technology, space, tools and time. The teacher:**

- 1) provides student access, just-in-time learning, digital tools and electronic resources.
- 2) creates digital space in which students regularly engage in activities to enhance learning.
- 3) provides learning experiences by using technology to actively engage all students irrespective of time zones or physical distances.

**G- Teacher effectively allocates time for students to engage in hands-on experiences, discuss and process content and make meaningful connections. The teacher:**

- 1) engages students in exploring real-world issue and solving authentic problems using digital tools and resources.
- 2) provides time and digital tools for students to discuss and reflect learning, irrespective of time zones and physical distance.

**H- Teacher designs lessons that allow students to participate in empowering activities in which they understand that learning is a process and mistakes are a natural part of learning. The teacher:**

- 1) designs activities for students to reflect on learning with digital tools: blogs, wiki, online journals.
- 2) designs activities for students to use digital tools as they discuss their learning with others.
- 3) creates opportunities for students to interact and ask experts using digital tools.

**I- Teacher creates an environment where student work is valued, appreciated and used as a learning tool. The teacher:**

- 1) uses digital tools and resources to highlight critical features of student work.
- 2) promotes, supports, and models creative and innovative thinking and inventiveness.

**Student Characteristics:**

**A- Student accepts responsibility for his/her own learning. The student:**

- 1) accesses digital tools and resources to support and manage his/her own learning.
- 2) explores educational goals, reflect and assess his/her own progress using digital tools and resources.

**B- Student actively participates and is authentically engaged. The student:**

- 1) selects from a variety of digital tools that supports his/her learning styles and interests.
- 2) uses digital tools to complete authentic assignments.

**C- Student collaborates/teams with other students. The student:**

- 1) interacts, collaborates, and publishes with peers, experts, or others and at a distance employing a

variety of digital tools and resources.

2) communicates information and ideas effectively to multiple audiences using a variety of media and formats.

3) develops cultural understanding and global awareness by engaging with learners of other cultures.

4) contributes to project teams to produce original works or solve problems.

**D- Student exhibits a sense of accomplishment and confidence. The student:**

1) uses technology that supports learning and productivity.

2) participates in activities where successful work is published/recognized online.

**E- Student takes educational risks in class. The student:**

1) uses digital tools to asks questions and request resources to more fully understand, enhance or add clarity to the learning.

2) digital tools and resources to participate in conversations and challenges.

**F- Student practices and engages in safe, responsible and ethical use of technology. The student:**

1) applies a fundamental understanding of the ethical/legal issues surrounding the access and use of information and media.

2) advocates and practices digital citizenship (digital etiquette, digital communication, digital literacy, digital access, digital commerce, digital law, digital rights and responsibilities, digital health and wellness and digital security).

## Section Two: Classroom Assessment and Reflection

**Classroom Assessment and Reflection:** the teacher and student collaboratively gather information and reflect on learning through a systematic process that informs instruction

**Teacher Characteristics:**

**A- Teacher uses multiple methods to systematically gather data about student understanding and ability. The teacher:**

1) uses a variety of technologies to gather/analyze data and provide students with multiple and varied classroom assessments aligned with content and technology standards.

2) provides digital assessment options based on learning needs including student's self reflection and peer feedback.

**B- Teacher uses student work/data, observations of instruction, assignments and interactions with colleagues to reflect on and improve teaching practice. The teacher:**

1) uses a variety of technologies to collaborate with peers within professional learning communities.

2) uses data sources to inform learning and teaching.

**C- Teacher revises instructional strategies based upon student achievement data. The teacher:**

- 1) uses digital tools and resources to research and implement best practices in classroom assessments.
- 2) uses digital tools to revise instructional strategies according to student learning needs.

**D- Teacher uncovers students' prior understanding of the concepts to be addressed and addresses students' misconceptions/incomplete conceptions. The teacher:**

- 1) uses digital tools and resources to address misconceptions.

**E- Teacher co-develops scoring guides/rubrics with students and provides adequate modeling to make clear the expectations for quality performance. The teacher:**

- 1) uses digital tools and resources to provide students models of quality performance.
- 2) collaborates with students and others to develop scoring guides/rubrics using technologies.

**F- Teacher guides students to apply rubrics to assess their performance and identify improvement strategies. The teacher:**

- 1) provides students opportunities to critique their performance against the rubric using a variety of digital tools and resources.
- 2) provides a variety of digital tools so students develop strategies for improving and revising their work.

**G- Teacher provides regular and timely feedback to students and parents that moves learners forward. The teacher:**

- 1) uses a variety of technologies to deliver descriptive and qualitative feedback to students and parents.
- 2) provides digital tools and resources to students and parents to support learning.

**H- Teacher allows students to use feedback to improve their work before a grade is assigned. The teacher:**

- 1) provides a variety of digital tools for the student to analyze work based on feedback.
- 2) utilizes technologies in order to provide opportunities for students to revise their work.

**I- Teacher facilitates students in self- and peer-assessment. The teacher:**

- 1) promotes student reflection using digital tools and resources to reveal and clarify students' conceptual understanding and thinking, planning and creative process.
- 2) provides students with peer assessment opportunities using digital tools and resources.

**J- Teacher reflects on instruction and makes adjustments as student learning occurs. The teacher:**

- 1) uses digital tools to assess student learning while teaching.
- 2) uses digital tools and resources to adapt instruction and support further learning.
- 3) evaluates and reflects on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning,

**Student Characteristics:**

**A- Student recognizes what proficient work looks like and determines steps necessary for**

**improving his/her work. The student:**

- 1) uses digital tools and resources to self-assess work using models of quality performance.
- 2) uses technologies to collaborate with students and others to improve his/her work.

**B- Student monitors progress toward reaching learning targets. The student:**

- 1) uses digital tools and resources to identify and target learning goals.
- 2) uses digital tools and resources to measure/monitor learning goals.

**C- Student develops and/or uses scoring guides periodically to assess his/her own work or that of peers. The student:**

- 1) uses digital tools and resources to develop scoring guides for his/her own work.
- 2) uses digital tools to assess/evaluate the work of peers.

**D- Student uses teacher and peer feedback to improve his/her work. The student:**

- 1) using teacher feedback, accesses digital tools to improve his/her work.
- 2) uses digital tools to gain feedback and insights from peers to improve his/her work.

**E- Student reflects on work and makes adjustments as learning occurs. The student:**

- 1) takes responsibility in the use of digital tools and resources to reflect on work in order to learn and achieve.
- 2) creates a variety of online work (e.g., blogs, discussion board, etc.) to demonstrate creative application of knowledge learned.

## Section Three: Instructional Rigor and Student Engagement

**Instructional Rigor and Student Engagement:** a teacher supports and encourages a student's commitment to initiate and complete complex, inquiry-based learning requiring creative and critical thinking with attention to problem solving

**Teacher Characteristics:**

**A. The teacher instructs the complex processes, concepts and principles contained in state and national standards using differentiated strategies that make instruction accessible to all students.**

**The teacher:**

- 1) implements technology tools and resources to meet the diverse learning needs of all students

**B. The teacher scaffolds instruction to help students reason and develop problem-solving strategies. The teacher:**

- 1) uses a variety of technologies/electronic resources to effectively differentiate and scaffold instruction to help students reason and develop problem-solving strategies for all students

**C. The teacher orchestrates effective classroom discussions, questioning, and learning tasks that promote higher-order thinking skills. The teacher:**

1) orchestrates effective classroom/online discussions (asynchronous, synchronous)

**D. The teacher provides meaningful learning opportunities for students. The teacher:**

1) implements learner-centered instruction that enables students to develop 21st Century Skills (including global awareness, financial, economic, business and entrepreneurial literacy, civic literacy, health literacy, information, media and ICT literacy, life and career skills)

2) effectively incorporates technology that prepares students to apply 21st Century Skills and meet future challenges

**E. The teacher challenges students to think deeply about problems and encourages/models a variety of approaches to a solution. The teacher:**

1) provides online opportunities for students to research, ask an expert or work with a mentor

to formulate possible solutions and/or create new innovations

**F. The teacher integrates a variety of learning resources with instruction to increase learning options. The teacher:**

1) integrates a variety of digital learning resources to increase learning options for all students, i.e., online collaborations/conferences, virtual field experiences, and career explorations.

**G. The teacher structures and facilitates ongoing formal and informal discussions based on a shared understanding of rules and discourse.**

**H. The teacher integrates the application of inquiry skills into learning experiences. The teacher:**

1) implements effective digital experiences to support student inquiry in authentic situations

**I. The teacher clarifies and shares with students learning intentions/targets and criteria for success. The teacher:**

1) communicates learning intentions/targets using online tools (Teacher Web pages, blogs, courses, etc.)

### **Student Characteristics:**

**A. The student articulates and understands learning intentions/targets and criteria for success. The student:**

1) uses technology for assignment planning, developing study skills and planning career

2) uses digital tools and resources to master content

**B. The student reads with understanding a variety of texts. The student:**

- 1) uses technology to read and understand a variety of print and nonprint texts (multimedia)
- 2) uses digital tools to communicate effectively

**C. The student applies and refines inquiry skills. The student:**

- 1) uses a variety of technological and information resources (e.g., libraries, databases, networks, video, conferences) to gather, evaluate and synthesize information and to create and communicate knowledge

**D. The student utilizes technology to develop creative/innovative ideas, products and solutions.**

**The student:**

- 1) uses technology in authentic situations to develop new ideas, products and solutions across disciplines
- 2) selects appropriate technology tools to complete authentic tasks across disciplines
- 3) uses digital tools to personalize learning and extend learning towards self-reliance and independence

## Section Four: Instructional Relevance

**Instructional Relevance:** a teacher's ability to facilitate learning experiences that are meaningful to students and prepare them for their futures.

**Teacher Characteristics:**

**A- Teacher designs learning opportunities that allow students to participate in empowering activities in which they understand that learning is a process and mistakes are a natural part of the learning.**

**B- Teacher links concepts and key ideas to students' prior experiences and understandings, using multiple representations, examples and explanations.**

**C- Teacher incorporates student experiences, interests and real-life situations in instruction.**

**D- Teacher selects and utilizes a variety of technology that support student learning. The teacher:**

- 1) models skills, attitudes, and values associated with digital citizenship.
- 2) designs activities that develop and assess levels of digital citizenship skills in students.

**E- The teacher effectively incorporates 21st Century Learning Skills that prepare students to meet future challenges. The teacher:**

- 1) effectively designs activities to develop 21st Century Learning Skills that prepare students for future careers and post-secondary educational experiences.

**F- The teacher works with other teachers to make connections between and among disciplines.**

**The teacher:**

- 1) collaborates with others (e.g., teachers, experts, community, post secondary), both face-to-face and online, to integrate technology as part of the curriculum while making connections between and among disciplines.
- 2) utilizes technologies to engage students in purposeful interdisciplinary authentic experiences that lead students to make connections within and among disciplines and to develop their own meaningful understanding of the content

**G- The teacher makes lesson connections to community, society, and current events. The teacher:**

- 1) integrates multicultural and global perspectives to foster inquiry enabling students to examine their world from personal, community and various cultural perspectives.
- 2) utilizes the diversity and culture of each student to build effective learning experiences.
- 3) collaborates with students, families and community members with differing perspectives to engage students in applying technology knowledge and concepts to examine issues and solve problems relevant to the student, school, community and world.

**Student Characteristics:**

**A- Student poses and responds to meaningful questions.**

**B- Student uses appropriate tools and techniques to gather, analyze, and interpret quantitative and qualitative data.**

**C- Student develops descriptions, explanations, predictions and models using evidence.**

**D- Student works collaboratively to address complex, authentic problems which require innovative approaches to solve. The student:**

- 1) interacts with technologies and digital resources to examine the world from personal and community/international perspectives to deepen understanding of content and foster inquiry.
- 2) participates in outside-of-school projects and problem-solving activities that have meaning for the students and the community.

**E- Student communicates knowledge and understanding in a variety of real-world forms.**

**F- Student communicates knowledge and understanding for a variety of purposes. The student:**

- 1) implements technology tools to communicate with real world audience for a variety of purposes.
- 2) selects appropriate technology tools and resources and applies technology skills to develop innovative ideas and create solutions and products.

**Section Five: Knowledge of Content**

**Knowledge of Content:** a teacher's understanding and application of the current theories, principles, concepts and skills of a discipline.

**Teacher Characteristics:**

**A- Teacher demonstrates an understanding and in-depth knowledge of content and maintains an ability to convey this content to students. The teacher:**

- 1) demonstrates proficient use of technology tools and resources to facilitate experiences that advance student learning, creativity and innovation in both face-to-face and virtual environments. (ISTE)
- 2) demonstrates continual growth in technology knowledge, skills and pedagogy to support student learning.

**B- Teacher maintains on-going knowledge and awareness of current content developments. The teacher:**

- 1) participates in local and global learning communities/professional development that supports 21st Century Skills, digital citizenship, and applications of technology to improve his/her own learning.
- 2) Keeps abreast of current developments in education technology and facilitates effective use of digital tools to support student learning.

**C- Teacher designs and implements standards-based courses/lessons/units using state and national standards. The teacher:**

- 1) designs, develops and evaluates authentic learning experiences incorporating technology tools and resources to promote student learning and creativity.
- 2) design and adapts relevant learning experiences incorporating universal designs for learning (UDL) to include multiple means of representation, action and expression, and engagement .

**D- Teacher uses and promotes the understanding of appropriate content vocabulary. The teacher:**

- 1) uses vocabulary to demonstrate digital citizenship
- 2) uses vocabulary to facilitate hardware, software and systems learning

**E- Teacher provides essential supports for students who are struggling with the content. The teacher:**

- 1) provides essential and specialized technology support for students who, for a variety of reasons (language, disability, etc. ) struggle with successfully attaining the content
- 2) collaborates with other professionals to make informed decisions and adapt content for student learning

**F- Teacher accesses a rich repertoire of instructional practices, strategies, resources and applies them appropriately. The teacher:**

- 1) researches best practices in order to select appropriate technology tools and resources to maximize content learning.
- 2) utilizes technology tools and resources to support content in authentic, meaningful ways which require students to use critical thinking skills.

**Student Characteristics:**

**A- Student demonstrates growth in content knowledge. The student:**

- 1) selects technology tools to support and enhance his/her content knowledge to be more fully engaged in the learning.
- 2) demonstrates critical thinking skills using appropriate digital tools and resources to plan, conduct research, manage projects, solve problems and make informed decisions.
- 3) demonstrates digital citizenship by using technology appropriately

**B- Student uses and seeks to expand appropriate content vocabulary. The student:**

- 1) extracts knowledge and information from reference materials, technical manuals, literature, and other texts (print and online) that are characterized by demanding and context-dependent vocabulary
- 2) uses vocabulary to demonstrate digital citizenship and technology knowledge

**C- Student connects ideas across content areas. The student:**

- 1) effectively uses a variety of technology tools and resources to articulate knowledge in meaningful ways across disciplines and his/her life.
- 2) effectively uses a variety of technology tools and resources to extend his/her own learning in school and local/international community.

**D- Student uses ideas in realistic problem solving situations. The student:**

- 1) demonstrates and models digital citizenship and responsibility.
- 2) uses appropriate digital resources and critical thinking skills to problem solve and make informed decisions in his/her life.