

5.8 Uses technology to increase student achievement. (CO: 7.2) (NETS 1a, 1b, 1c, 2b, 2c, 4b, 4d)

	Basic (1.0 - 1.9)	Developing (2.0 - 2.9)	Proficient (3.0 - 3.9)	Advanced (4.0)
A. Evaluates technology resources on achievement (NETS V.B)	No evidence OR Draws inaccurate conclusions about the effects of specific tech resources on student achievement	Understands effects of specific technology resources on student achievement through evaluation of case studies or article reviews but may make some errors in accurate interpretation of information; no evidence of evaluation of tech use in lesson reflections	Demonstrates comprehension of effects of specific technology resources on student achievement through evaluation of case studies or article reviews relates results of published research on specific tech use with own experiences; provides evidence of evaluation of effects of tech use in lessons implemented with K-12 students	Synthesizes the results of research on specific technology applications and draws accurate conclusions about effects on student achievement; provides evidence of effects of own tech use in lessons &, as a result, changes use in future lessons to improve student learning
B. Expands Instructional Models (1c)	No evidence of using technology in instruction OR only uses technology in direct instruction, controlling its use (e.g, in using PPT to enhance a lecture)	Plans at least one example of the following uses of technology: collaborative learning activities in which students use technology resources, technology in self directed (research, inquiry learning) activities, distance and distributed learning	Includes plans for all of the following uses of technology and effectively implements at least one example of the following in lessons with students: collaborative learning activities in which students use technology resources, technology in self directed learning activities, distance & distributed learning	Includes plans for all of the following uses of technology and effectively implements multiple examples in lessons with students: collaborative learning activities in which students use technology resources, technology in self directed learning activities, distance & distributed learning
C. Facilitates Thinking (1a, 1b, 1c)	No evidence of this dimension	Can accurately include technology resources (software applications, Internet resources, hardware and other tools) in teaching plans that facilitate higher order thinking by students, demonstrating at least two: a) complex thinking (e.g., problem solving, informed decision making, critical thinking), b) creative and innovative thinking (e.g., designing), c) authentic problem-solving using real-world problems, and d) reflection and self-evaluation	Can accurately plan for and use technology resources (software applications, Internet resources, hardware and other tools) in instruction that facilitates all of the types of thinking by students that are listed in "developing"	Meets the criteria for "proficient" and demonstrates "advanced" skills by using a variety of tools and technology applications to meet the standard

<p>D. Supports Diverse Learning Needs (CO 7.2.2) (2b, 2c, 4b)</p>	<p>No evidence of this dimension</p>	<p>Designs learning experiences using technology that will support at least one of the following diverse learning needs: a) <u>differences in learning & performance</u> (remedial uses of technology, extended practice, enrichment activities, individualized instruction); b) <u>individual learning styles & interests</u> (matching of student interests); c) <u>IEP/ILP/504 plans</u> (tech use that matches objectives from plans), d) <u>English Language Learners</u> (bilingual programs, language learning software, use of card readers), e) <u>equitable access to digital tools</u> (implementing accommodations as needed)</p>	<p>Designs and implements learning experiences using technology for a) and b) listed in "developing; ratings higher than "3.0" must demonstrate ongoing plans, not an isolated lesson; additional applications of c) and d) should result in scores of "3.75" or higher, even if s/he requires support to plan and implement them</p>	<p>Meets the criteria for "proficient" and shows flexibility in designing, managing, and facilitating learning experiences using technology that will support all the diverse needs of learners by implementing multiple, sustained, ongoing examples for a) and b) and demonstrating c) and d)</p>
<p>E. Facilitates Equitable Access (4b)</p>	<p>No evidence of this dimension OR fails to use technology in a manner that is equitable (e.g., allows differential training or experiences based on gender, assumes technology access at home to complete assignments)</p>	<p>Designs learning experiences using technology that will provide equitable access for all students, including <u>assistive technology and universal principles of web design</u> (e.g., touch screens), <u>technology applications that accommodate differences</u> (e.g., Franklin Spellers, card readers, reading pens, translators), <u>alternative assignments/means to complete assignments</u> if no access to technology at home, etc.</p>	<p>Designs, manages, and facilitates learning experiences using technology that will provide equitable access for all students; uses at least one assistive strategy and/or accommodation to ensure equity; ensures equitable experiences in the classroom and school (e.g.:gender equity)</p>	<p>Meets criteria for "proficient" and shows flexibility in designing, managing, and facilitating learning experiences using a variety of assistive technologies and technology applications that will provide equitable access for all students; ensures equitable experiences in the classroom and school (e.g.:gender equity)</p>
<p>F. Uses technology that will affirm diversity.</p>	<p>No evidence of this dimension uses web materials that promote stereotypes</p>	<p>Reviews software and Internet resources accurately for their support of equity and diversity</p>	<p>Selects & uses software and Internet resources that support diversity in lesson plans in teaching</p>	<p>Selects & uses software and Internet resources that support diversity in lesson plans in teaching; includes examples of adaptations and activities in lessons that improve the use of technology in affirming diversity</p>

Operationalization/Criteria:

Guidelines for Admission to Education:

1. Benchmark for admission includes: *Reviews software and/or internet resources accurately for their support of equity and diversity and for its ability to facilitate higher order & complex thinking; includes technology resources to facilitate higher order and complex thinking skills in teaching plans*
2. Following the inventory (above), a student should earn a rating of "developing" on dimensions A, B, and C.
3. Some students may not yet have taken ED 280/520; they would receive a rating of "1.0."

Evidence to be Evaluated: Software evaluation, webquest that included technology resources to facilitate higher order thinking, lesson plan using technology (ED 280/520)

Guidelines for Admission to Student Teaching:

1. Benchmark for admission to student teaching is a rating in the "developing" range in all dimensions of the standard.
2. To evaluate, supervisors should review the material in the portfolio that is attached to the standard, as well as field experience evaluations.

Examples of Evidence: Field experience teacher's evaluation form, examples of technology plans/use in eportfolio (lesson plans, webquest, unit), video clips of teaching

Guidelines for Program Completion/Student Teaching:

1. Required for program completion are ratings of "3" or "4" on evaluations of the university supervisor and cooperating teacher.
2. Observe for both quality and variety of technology integration.
3. Evaluate group and individual student participation and learning -- observe a variety of students, including challenging students.
4. Observe teacher's level of independence and use of specialist expertise in planning and implementing technology integration..
5. Evaluate both plans, materials for students, and the teacher's assessment of learning.
6. Evaluate across different curriculum areas, including literacy.
7. Consistency = requires fluency/repetition, including documentation of competence in different content areas, with different lesson formats.
3. A possible Inventory narrative should describe an example of student performance: e.g., *In implementing her TWS, she developed a virtual field trip that used technology to enhance critical thinking and differentiated requirements for different student interests and reading levels.*

Examples of Evidence

Observation of teaching, lesson plan book, unit plan, TWS, examples of technology use in eportfolio, including student achievement data

Rationale:

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Ulman, J.G. (2005). *Making technology work for students with special needs*. Upper Saddle Rivers, NJ: Merrill.

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