

## **Using Technology to Support Differentiation**

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Differentiated instruction is really a philosophy that teachers embrace to address the vast array of differences in their students as they interact with essential content within a field of study or segment of learning. Differentiation is based on the premise that all learners must have multiple options for taking in information, making sense of ideas, and expressing what they learn. One cannot define differentiation without addressing the essential content that serves as the basis for the teaching and learning experiences developed to ensure understanding. In a classroom, all learners should be asked to make sense of and apply the ideas and skills of the disciplines, but in a manner that respects them as learners. For all learners this means educators must make certain that they are teaching essential content (i.e., seminal ideas and skills of the disciplines) in ways that address the varied learning needs of students with the goal in mind of maximizing the learning possibilities of each learner. Therefore, curriculum and instruction must be suited for the current readiness level of the learner, tap into and/or develop the student's interests, and be offered in a mode of learning effective for the individual. As students become more advanced in their knowledge, understanding, and skills in a domain, the challenge level of the materials and learning tasks will necessitate escalation.

### **What Does Differentiation Look Like in a Classroom**

When peeking inside classroom doors, we should be able to see a variety of indicators that suggest that this philosophy is in place. In a teaching and learning environment, we should be able to see that:

1. Instructional units focus on essential facts, understandings, and skills that professionals in that discipline value most rather than on superficial explorations of topics;
2. Students explore and apply the key concepts of the subject through varied learning opportunities that enable students to make sense of and show evidence of the essential ideas within the unit of study;
3. Student assessment, including pre-assessment, is on-going and guides decisions educators make to address the learning differences among students;
4. Students have access to an array of instructional materials and resources to support their learning;
5. Students make connections of ideas at a personal level as well as a universal level. This means that the ideas within a unit of study should help students to understand the use of these ideas in their life and in the lives of others;
6. Students set goals for their learning and self-assess their progress;
7. Students apply what they learn in interesting and important ways;
8. Students feel safe within the classroom setting to express ideas, to make suggestions, and to seek assistance in their learning;
9. Students work within a variety of group settings throughout the week to make

sense of the content. Groups can be formed to address student readiness, interest, or learning profile.

We should see educators working to seek clarity in their instructional units. Many of us as teachers are uncertain of the key concepts, principles, and skills of the disciplines we teach. It is of great importance to student understanding, however, that we invest the time needed to discover these conceptual frameworks and to build curriculum solidly on those frameworks. If the content and skills of a unit of study are narrowly defined, it often lowers the mental activity level required in the instructional tasks that teachers create for their students. Typically wrapping the principles, concepts, understandings, and skills around the instructional unit, can give the unit “legs” on which to stand, and provides us with an opportunity to differentiate the instructional unit at a level of sophistication that may be more appropriate for some learners. Therefore, the first thing we can do to see if differentiation is occurring within a classroom is to view how instructional units are organized and designed for the learners, and to analyze the “levels of knowledge” and the “range of expertise” embedded within the instructional unit and learning tasks.

In a differentiated classroom we should see students working hard to make sense of and to apply the ideas that are the focus of the instructional unit. Actively, students should be constructing knowledge of these ideas and the information, reconstructing older understandings of the concepts and replacing them with new ones, and applying these ideas as they solve problems or see new connections across disciplines, culture, and perspective. Additionally, we should see that students have a role in creating and posing inquiries about the ideas within units of study to further advance their personal interests. The questions that students ask often mirror those of the scholars and practitioners in a particular field of study. Classroom environments created to establish this type of rapport with students will reflect a great deal of student discourse, where students are encouraged to challenge ideas, to propose new solutions, or to generate other areas of interest to pursue within the unit of study.

Once we see students actively engaged in seeking meaning in the teaching and learning environment, we should be able to assess the progress that students have made toward understanding the outcomes that were established for each area of study. Collections of assessment data in a variety of formats (i.e., pre-tests, standardized tests, journal entries, interviews, portfolios of work samples and products, etc.) are used to guide differentiation decisions. In classrooms where differentiation is occurring, we will see teachers using assessment data to inform their practice.

### **Supporting Teachers as They Learn How to Differentiate**

First and foremost, teachers must be supported in their attempts to provide differentiated learning experiences for their students. Differentiation is not something that is achieved in an academic year by having one day of professional development. Differentiation is a long-term goal that requires constant refinement, new information, and continued assessment to chart its effectiveness. Professional learning communities

(i.e., study groups) can be established to study a particular aspect of differentiation. These study groups can develop a set of questions to guide their inquiry into the selected area of study. This team should focus on the knowledge, skills, and behaviors needed to successfully apply the practice of differentiation to their classroom settings.

Additionally, teachers should receive in-depth training on the use of strategies for differentiation, and they should be encouraged to experiment with these strategies in their classrooms. The teachers who are trained and have experimented successfully with these strategies can then serve to train other teachers in the use of differentiation. Eventually, each team or department should develop plans for implementing those strategies that align most closely with their curricular standards and courses, making concerted efforts to conduct action research about how the selected strategies worked within their classrooms.

### **Stumbling Blocks Along the Way**

The stumbling blocks to implementing differentiation in general include varying philosophies that exist among educators within school settings regarding the meaning and use of differentiation. This is why continuous professional growth and opportunity for inquiry are necessary elements to foster within the context and culture of a school. It is important for all educators to view differentiation as a philosophy and then to assess the manner and degree to which differentiation occurs within each classroom. It is also important to realize that teachers will vary along the lines of a continuum in their expertise in knowing how to differentiate in the teaching and learning environment. This variance, not unlike the variance we see in students, should be respected when planning effective professional development.

Obviously, the level to which teachers have clarity of the content and skills being addressed in specific units of study will affect their ability to design instructional tasks that are challenging to students. When educators have the time to study their content and to clarify what they want students to know, understand, and be able to do, I often find that the instructional tasks that they design become more meaningful and require students to think more deeply. Therefore, time must be given to educators if we truly wish to enhance differentiated practices.

### **The Role of Differentiation for Servicing Advanced Learners**

As students become more advanced in their knowledge, understandings, and skill in a domain, the challenge level of materials and tasks will necessitate escalation. Developing curriculum that is rigorous, challenging, and interesting for students is the role that differentiation serves to achieve for gifted students. Therefore the content of the curricula for gifted students should focus on providing ways to have students interact with more advanced readings, resources, and research materials; apply the ideas and skills within a unit of study to contexts quite unfamiliar and dissimilar from those applications explored in class; develop systems for making connections, achieve balanced perspectives, and address problems within a field of study; work with problems currently

posing difficulties to experts in specific fields of knowledge; and reflect on how theories, beliefs, and principles in a field relate to themselves.

The grouping practices that the field of gifted education has used in the past (acceleration, with-in grouping, cluster grouping, etc.) can co-exist with differentiated practices. Flexible grouping practices should be used within classroom settings as learners work together to develop knowledge of new content.

- First and foremost a school must develop a shared vision based on a shared rationale, common beliefs, and in a common culture of collaboration. Everyone must be involved in the process of developing the vision of differentiation and realize that achieving this vision will require sustained effort and time.
- Provide time for administrators and teachers to study differentiation and implement instructional techniques that support student learning.
- Provide on-going, differentiated, professional support and in-service training in differentiation to assure its full implementation.
- Support the purchasing of alternative materials/resources that teachers need to modify instruction based on student variance.
- Arrange opportunities for teachers across grade level to discuss how to modify curriculum to match student's academic needs.
- Make differentiation a part of one's professional evaluation growth plan.

If differentiation is occurring in the classroom, we should see all students challenged in a manner that respects them as learners. When families visit with their child's teacher, there should be evidence that a teacher knows the child as a learner, and has used this information to maximize the learning potential of that child. If a child is challenged at an appropriate level and in an appropriate manner, we should see a child who feels more efficacious about their learning and motivated to learn. Teachers who work actively to develop learning environments, curriculum, and instruction that honor the complete learner help students to feel secure in the classroom setting and with the learning process. If teachers are truly differentiating then students get a sense that the classroom is a safe place to express their ideas, ask questions that matter to them, and view making errors as an inevitable part of learning and growing. In a differentiated classroom, students understand how they learn differently, thus they learn to appreciate each other's contributions to the learning process. Continuing to learn at a pace and in a manner that ensures continuous growth and excitement about learning IS the ultimate goal of differentiation.

### **The Use of Technology to Support Differentiation Efforts**

One of the major advantages of using technology in the classroom is the ability to address the varying levels of readiness, interest, and learning preferences in students as they interact with the assigned content, process the information and/or apply the skills, and then produce evidence of their learning through products or performances. Technology provides educators with the tools to find, select, and adapt content to accommodate the learning differences in our students and resources to escalate the level

of thought of students and/or provide access to accelerated topics. Technology software can be found to allow students to interact with simulations and visual material to process information through alternative formats, collaborate with their peers as they engage in meaningful research opportunities, co-author publications, produce meaning products of develop performances using alternative ways of revealing to others the essential ideas of what they have learned, and assessment devices to gain feedback on what they are processing about the desired outcomes from a particular lesson or unit of instruction.

Listed below are technology resources to support educators in their efforts in differentiating instruction for all learners.

### **Open Educational Resources and Other Curricular Resources**

Teachers who pay attention to learner needs quickly realize that there will be a need to access curriculum that can be adapted or modified to meet the readiness level of his/her students. Open Education Resources (OER) are teaching and learning materials freely available for everyone to use, whether you are a teacher or a learner. This includes full courses, modules, syllabi, lectures, homework assignments, quizzes, lab activities, pedagogical materials, games, simulations, and many more resources contained in digital media collections from around the world.

#### **Curriki (<http://www.curriki.org/welcome/>)**

This organization offers a collection of free and open source content and collaboration tools. Users can use the content at no charge and have the rights to customize much of the content to meet the needs of their students. Educators can search and browse the online collections and also upload their own content to mix and remix it with other useful materials. Much of the content can be edited in a Wiki to design curricular options based on student needs. In addition to the lesson collections, educators can work collaboratively in a virtual space on any content area that they wish with other educators to create new curriculum resources for their students.

#### **MyOER (<http://www.myoer.org>)**

This site contains a repository of Open Educational resources that can be searched by standard or subject and includes an evaluation rubric used to determine each resource's quality. By registering for a free account, teachers receive an online locker or a place to store the collections they are interested in using.

#### **OER Commons (<http://www.oercommons.org>)**

This site houses collections of resources aligned to the Common Core Standards including lesson plans as well as implementation tools.

#### **iLabCentral (<http://ilabcentral.org>)**

iLabCentral is a virtual lab that resides in the cloud and contains more than 7,000 experimentations which can be used as a way to create learning opportunities for students, allowing them to share and discuss procedures and results. Teachers can

integrate the iLABS in a range of science courses, which may be more appropriate for some learners or provide an additional vehicle for understanding scientific concepts.

**National Science Digital Library** (<file://localhost/http://nsdl.org>)

NSDL was established by the National Science Foundation (NSF) in 2000 as an online library which directs users to exemplary resources for science, technology, engineering, and mathematics (STEM) education and research. NSDL provides an organized point of access to STEM content that is aggregated from a variety of other digital libraries, NSF-funded projects, and NSDL-reviewed web sites. NSDL also provides access to services and tools that enhance the use of this content in a variety of contexts. NSDL is designed primarily for K-16 educators, but anyone can access NSDL.org and search the library at no cost. Access to most of the resources discovered through NSDL is free; however, some content providers may require a login, or a nominal fee or subscription to retrieve their specific resources.

**Khan Academy** (<http://www.khanacademy.org>)

The Khan Academy offers over 4,000 instructional videos covering everything from basic algebra to advanced chemistry, biology, and history. The videos found at Khan Academy can be used to supplement instruction, set up as a learning station to have students rotate through focused attention with the teacher, to interact and explore activities, and time to practice and review skills. This site can also be used to provide access to students who are ready for more advanced skills and content instruction beyond their current grade level.

**MIT OpenCourseWare** (<http://ocw.mit.edu/index.htm>)

MIT OpenCourseWare (OCW) is a web-based publication of virtually all MIT course content. OCW is open and available to the world and openly online for anyone to adapt, translate, and redistribute. MIT OCW have been translated into at least 10 languages, including Spanish, Portuguese, Chinese, French, German, Vietnamese, and Ukrainian.

**edX** (<https://www.edx.org>)

EdX is a not-for-profit enterprise of its founding partners Harvard University and the Massachusetts Institute of Technology that features learning designed specifically for interactive study via the web. This content is available to anyone in the world with an Internet connection, and in general, there will not be an admissions process. Features include: self-paced learning, online discussion groups, wiki-based collaborative learning, assessment of learning as a student progresses through a course, and online laboratories and other interactive learning tools.

**CK-12** (<http://www.ck12.org/student/>)

Using services like CK-12 make it easy for teachers to assemble their own textbooks. Content is mapped to a variety of levels and standards including the Common Core State Standards. You can start from scratch or build from anything from the FlexBooks library.

**Gooru** (<http://www.goorulearning.org/gooru/index.g#!/home>)

Gooru is a search engine for learning that is making it easier to find and use educational content from across the Internet. They've made over 2,600 collections freely available, all curated for quality and aligned to standards by teachers and Gooru's own content experts. Discover millions of standards-aligned STEM resources, including videos, games, textbooks, and quizzes, for 5th-12th grade topics. Teachers can search from individual resources, collections, and formative assessments created by educators in the Gooru community. A teacher can also create collections for students based on interests and readiness levels.

### **Blogging Tools**

Today blogs are being used for a variety of purposes. Blogs allow educators to create a forum with a community of learners to discuss important issues, respond to questions, or even interact with content that is posted in a chronological manner. It's possible to create a blog where students respond to particular relevant political cartoons. Students can be asked to evaluate the cartoon's meaning and connect its importance to current events. Videos can be embedded into the blog and students can critique or comment on the essential ideas communicated to them via this format.

#### **Blogger (<http://www.blogger.com/home>)**

A popular blog that allows educators and students to collaborate, share instructional resources, create content and connect to YouTube, podcasts, other blogs, and social bookmarks, etc. all on one centralized page.

#### **Weebly (<http://www.weebly.com>)**

Weebly is an easy way to create a website and it also lets a teacher create 40 student accounts for free with no student emails required. Blogs can be made public or private and the teacher has full access to them all on their own dashboard. It is easy to create a website with this simple drag and drop interface, and there are no ads to spoil or distract from a finished blog. There are over 70 blog and website templates to choose from and the ability to upload or embed pictures, videos, maps and more, which makes Weebly a great blogging tool for educators and their students.

#### **Kidblog (<http://kidblog.org/home/>)**

This blogging tool is great for teachers who want to provide each student with an individual blog. Students can publish posts and participant in academic discussions within a secure classroom blogging community. Teachers maintain complete control over student blogs and user accounts. This blogging tool is a great way to create classroom discussions using a variety of tiered questions, engage students in a debate about a compelling topic with multiple perspectives, or to reflect on their learning. Teachers have full administrative controls over all blogs that are created by students, and passwords can be issued so that parents or other family members can view individual student blogs.

## **Alternative Ways to Communicate and Express Ideas**

In differentiated classrooms, teachers will want to ensure that students have a way to express themselves in a variety of formats or using a variety of tools to communicate what they have learned. For educators, these tools provide a way to change the way that the content is delivered and organized.

### **Voki (<http://www.voki.com>)**

Using Voki, students can share their knowledge of a topic in 60 seconds or less or create character profiles of the characters they are reading from their book selections. Students can also create debates on issues or demonstrate varying points of view. They create customized avatars, add voice, and post their messages to any blog or website. In addition to the free Voki there is an additional Voki Classroom, which costs you, but provides more support and additional resources to use with your students.

### **Penzu (<http://www.penzu.com>)**

Penzu is a free online diary and journal where you can securely protect your files and thoughts with password protection or choose to share it with others. The free version allows you unlimited entries, embed images from your own computer or Flickr, autosaving, printing and sharing via email and public link, and commenting on shared entries. The pro version of Penzu includes an ability to create avatars, select different paper styles and writing backgrounds, multiple journals, and the ability to export journals in PDF, text files, and more. It is possible with this platform to establish a classroom journal, set up various journal entries according to student readiness or interest where students be given possible topics to discuss, and then the teacher can leave inline commenting to give contextually specific feedback without disrupting the original entry.

### **Jing (<http://www.techsmith.com/jing.html>)**

Jing is a screen sharing tool that allows you to capture anything on your computer either as a still image or as a video up to 5 minutes long. It is an excellent tool for narrating and sharing what is on your screen. Using Jing you can record videos of your computer screen to visually demonstrate and orally explain to viewers how to perform a task on their own computers. You can also provide feedback to student papers by highlighting areas of interest that you wish to discuss with the students. Some teachers have found that they can create short screencasts and screenshots to explain to students how to perform a task, complete an assignment, or provide extra support to students so they can watch them when you are not available to answer their questions. Students can also use Jing to demonstrate a skill that they have been working on and email them to each other or the educator to assess for student understanding. Jing comes in a free and a professional version. The pro version allows you to save videos as MPEG-4 files, which allows for easy editing in other programs and removes advertisements and the Jing logo from the end of video recordings. With the pro version you can easily upload your video tutorials to YouTube.

**Eyejot** (<http://corp.eyejot.com>)

Eyejot is a simple online video messaging platform that allows you to create and receive video messages. A teacher can use it to create a video communication portal for students within a website or a course management system. Premium accounts include a mobile-supported inbox. You compose a message, address it by entering the recipient or groups of recipient's email addresses, and click send. The user on the other end receives a notification in their email inbox and then clicks on it to open the video message. The recipient does not require an account to view the message. This platform is particularly useful for students with challenges reading and writing such as a person with dyslexia. Educators can use it to send feedback to students as they review their papers or to simply remind students of an upcoming assignment that is due. Eyejot has 3 account levels to choose from which include the increase in the length of time for the video message.

**Animoto** (<http://animoto.com>)

Animoto is a free video creating service that allows you to create and share 30-second videos using your own pictures, video clips, words, and music. You can also upload images and videos from the Animoto stock gallery or import them from other sites. The photos and videos can be reordered by dragging and dropping them and then you select music from your own collection or the tunes in the Animoto library. After giving your video a title and a short description, Animoto will process and render your video and you will be sent an email to link you to your finished production. Additional pricing plans are available to increase the length of the video produced and to gain access to a variety of features. Students can use this tool as a way to upload snapshots of images that relate to the book they are reading to produce book trailers, create digital stories, add a book talk, etc. Animoto is useful for projects where students have to share ideas and concepts, present and overview of a topic, or to express a personal belief about some issue.

**Audacity** (<http://audacity.sourceforge.net>)

Audacity is a free, downloadable application that allows users to record and/or edit music, voice narration or other sound files for multimedia projects such as podcasts, Animoto videos, Glogster posters, Voki avatars or digital stories. Audacity can be used by teachers and students to express their creativity, knowledge, ideas and skills in the classroom. Students can create podcasts, record speeches, or to use it to simply provide an alternative to asking students to tell you what they understand about a topic or how to perform a certain skill.

**YAKiToMe** (<http://www.yakitome.com/tts/index>)

This is a free text to speech program. This program allows you to take electronic text and convert it to voice that can be played on any MP3 player. It is entirely free and you can select for conversion text, docs, pdfs, .txt formats, RSS feeds, PowerPoints, and emails.

**Big Huge Labs** (<http://bighugelabs.com>)

Big Huge Labs provides a variety of tools for turning digital images into magazine covers, posters, puzzles, maps, CD covers and trading cards. All a teacher has to do is create a free account and upload proof of their profession. The teacher can then start creating/uploading student accounts. Once this is done, each student will get a

unique ID and password and can then save their creations online.

**Glogster** (<http://www.glogster.com>)

Glogster is a web based application that allows users to create a web poster about themselves or topics of interest. Glog posters can include images, text, audio files, embedded video clips, and attached documents (with premium accounts). Glogster EDU provides 1 free basic account for educators, the ability to purchase a low cost plan that provides 50 student accounts, and provides teachers with a dashboard to manage student accounts.

**Issuu** (<http://issuu.com>)

Issuu is a free service that allows users to upload PDF, Word, Excel, and Powerpoint files to create "paperless" online magazines. Page turning and zoom options are all built into the technology of Issuu and are automatically activated when the document is published. The online magazines you create can be embedded in blogs, wikis or websites. Students can use Issuu in many ways. For example, students can create electronic portfolios of their writing or artwork or compile their research about historical, scientific, or literary events or people. Teachers can use it to publish instructions and handouts for assignments for student access.

**Ways to Interact with Course Content**

In a differentiated classroom a teacher should consider alternative ways to have students interact with course content. At times, teachers will find themselves needing to provide alternative ways for students to gain access to curricular ideas, text that is a more appropriate match with a students reading level, and video or simulations that engage the student in meaningful learning. The following sites have potential for students reacting to content in a variety of ways, yet allow the teacher to organize content that can be accessed by all learners.

**Wall Wisher** (<http://padlet.com>)

Wall Wisher is now called Padlet and is like having a virtual corkboard and posting sticky notes everywhere. Wallwisher is an Internet application that allows students to post their thoughts on a common topic using electronic sticky notes on a shared digital wall. Teachers can also post resources (embedded images, videos, and text content), and ask students to post their thoughts regarding questions that they pose about the resources. Students can type a maximum of 160 characters per electronic sticky note that can incorporate an image, audio or video using the appropriate web address link. Wallwisher also provides a collaborative area online where students can contribute to learning anonymously or authored and their contributions can be made synchronously (during lecture inputs) and displayed immediately for others to read. Students and educators can access the collaborative area after the input to assimilate the information gathered. Teachers can use this site to have students brainstorm an idea, access discussion and ideas after a class lecture, and provide instructional resources more interactive through students responding using mobile devices that have Internet accessibility.

**LiveBinders** (<http://www.livebinders.com>)

LiveBinders is a quick and free way for teachers and students to create a virtual binder on any topic. Teachers can use LiveBinders to direct students to specific content or websites to study a certain topic. Additionally teachers can organize these resources (websites, pdfs, images, videos, PowerPoints, and documents) and create a series of differentiated learning tasks that match student readiness levels. Student can create a digital collection of material or content for a project in a subject and share this virtual binder with the rest of the class, such as the submission of a completed project including notes, sources, and rough drafts.

**Evernote** (<https://evernote.com>)

**Evernote** is a web-based tool that allows users to keep all of their notes, images, and ideas in one “searchable” environment. Evernote allows a user to gather clippings from various websites without having to bookmark the entire site, clip the text and photos that are important, and “store” them in Evernote. Free software is available for both PC and MAC and allows users to work offline and then sync to the web version when they have online access. One possible way for using Evernote is to have students consider using Evernote to complete a research project. Using the sites that are located, students can locate information that is relevant to their topic. By clipping the appropriate part of the documents, inserting the url and tagging the information, the student has created a virtual notecard that is stored and ready when he or she needs the information.

**VoiceThread** (<http://voicethread.com>)

VoiceThread is a cloud application that allows users to upload slide shows of images, documents, or videos that enable viewers to have conversations and to make comments by entering text, recording comments using a microphone or phone, audio file, or with video using a webcam. The company has also launched [Ed.VoiceThread.com](http://Ed.VoiceThread.com), a secure site just for educators and their students. Students have used this site to upload presentations and received feedback from their peers, and teachers have used to the site to upload curricular resources that students can debate or engage in a thoughtful discussion.

**Student Assessment and Feedback**

To adjust the teaching and learning experiences for students in a differentiated classroom, educators will come to value these tools that provide them with assessment data to inform their instructional decisions.

**Socrative** (<http://socrative.com>)

Socrative is a cloud-based student response system that allows teachers to create simple quizzes that students can take quickly on laptops, classroom tablet computers or their own smartphones. After teachers register, which is free, they login by entering their email and password at [t.socrative.com](http://t.socrative.com). Students login at [m.socrative.com](http://m.socrative.com) by entering the “virtual room number” provided by the teacher. Students will then see a message that says, “Waiting for teacher to start an activity.” At this point, teachers will begin posing questions (true/false, multiple choice, or open-ended short responses) to students in either

a teacher-paced format (for use during a classroom discussion) or student-paced (for use as a more traditional class-end “exit ticket” or quiz). There’s also a gaming element: the “Space Race” feature can set up a quiz so that teams of students can compete against one another to launch rockets into space. Results can be displayed live in the classroom to facilitate discussion.

**EtherPad** (<http://etherpad.org>)

EtherPad is a web-based processor that allows teachers and students to work together in real-time. When students write, teachers can join in and offer suggestions for editing the same document simultaneously. The changes are instantly reflected on the students’ screen. The result is a way to collaborate on text documents, useful for making suggestions and comments, helping draft out an assignment and educating students in mechanics. Teachers can work with ELL students as they write by making real time suggestions in language development. Great way for initiating real time language support while students are developing their language skills through written expression.

**TodayMeet** (<http://todaysmeet.com>)

TodayMeet allows teachers to generate a discussion, without the interface of raised hands or student disruption. Teachers can conduct online discussions, while channeling the responses onto one webpage or an Interactive White Board. Teachers provide students with a link to a “room” where they will be hosting the discussion. Students simply login to TodayMeet and click join. This tool is an effective way to capture what students have come to understand about a topic or to facilitate student discussions.

**Author Note:**

Dr. Jann Leppien is an associate professor at Whitworth University in Spokane, Washington. She is the recipient of the Margo Long Chair in Gifted Education, an endowed chair funded by James P. and Wanda Cowles. Whitworth's Center for Gifted Education supports and develops policies and practices that encourage and respond to the diverse expressions of gifts and talents in children and youth from all cultures, racial and ethnic backgrounds, and socioeconomic groups. To this end, the center supports and engages in research, staff development, advocacy, and communication and collaboration with other organizations and agencies that strive to improve the quality of education for all students. In this new position, she will teach courses in gifted education for teachers who are seeking endorsement credits and obtaining master’s degrees in gifted education. Prior to this position, she taught courses, at the University of Great Falls in Montana in curriculum and assessment, gifted education, educational research, and social studies methods. She also teaches curriculum and thinking skills courses online and in the Three Summers Program at the University of Connecticut. Before joining the faculty at the University of Great Falls, she worked as a research assistant for The National Research Center on the Gifted and Talented (NRC/GT). She has been a classroom teacher, enrichment specialist, and coordinator of a gifted education program in Montana. She is the co-author of *The*

*Multiple Menu Model: A Practical Guide for Developing Differentiated Curriculum, and The Parallel Curriculum: A Design to Develop High Potential and Challenge High-Ability Students.* She conducts workshops for teachers in the areas of differentiated instruction, curriculum design and assessment, thinking skills, and gifted program development. She has served on the board of the National Association for Gifted Children and currently is a board member of the Association for the Education of Gifted Underachieving Students (AEGUS).