Partnering Lesson Plan for
Identifying Greatest Challenges for Teachers
and Developing Strategies To Overcome Challenges
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Driving Question

What are the greatest challenges for 21st century teachers, and how can they utilize strategies to overcome these challenges and prevent burnout?

Guiding Questions

What are the strategies teachers must utilize?

How can teachers develop strategies and teaching practices to overcome these challenges?

How can K-12 administrators help teachers develop these strategies?

Lesson Overview

The Problem: Principals, teachers, students and parents all understand that the face of education has changed. 21st century teaching is changing as our learners expect and need a much different classroom experience. This tutorial will focus on the challenges that lead to teacher attrition, school accountability rather than parental and student accountability, changes in our learner population, 21st century student expectations compiled with budget crisis/cuts, while building skills to ensure student preparation for higher education and the workforce. As with all challenges, there lies opportunities if change is embraced. Technology is a great support that students widely utilize and the differentiation potentials within these tools allow for a cohesive individualized learning experience that is experiential and problem-based.

The Purpose (why the questions are appropriate for this lesson): This administrator recognized the opportunity to train the people who impact and promote learning. This training will address challenges and suggest solutions to promote teacher satisfaction, learner growth and a mindset that meets the needs of both, by practicing the skills teachers can use with students in the classroom.

Learning Context

The context for this lesson will take place at a school library and is open to all educators. The location will have access to computers and other technology, or the learner is welcome to bring their own technology which can access the internet. Congruency issues will not pose a problem as every learner will have equal access to information, technology and content. Data used to create this context is made through site observations and communication with 21st century educators and learners and meets the performance context requirements. In preparing this lesson, the instructional designer was able to visit the learning space and interview the learners and observe many of the challenges.

The instructor will prepare a face-to-face training, an online video and utilize web-based tools to engage the learners. This will be a training offered to all staff in a school and will follow much of the Dick, Carey & Carey (2015) model that was introduced to this instructional designer.

	Information Categories	Data Sources	Learning Site Characteristics
1.	Number/Nature of Sites	Visit the site, interview	One school computer lab with
		educators and teachers,	internet access.
		review data sources collected	Internet access for school or
		by teachers and district	private computers.
2.	Site compatibility with	Visit the site, interview	Providing technology functions
	instructional needs	educators and teachers,	and internet access is available,
		review data sources collected	site is compatible with
		by teachers and district	instructional needs.
3.	Site compatibility with	Visit the site, interview	Learners have technology and
	learner needs	educators and teachers,	internet access available. Chairs
		review data sources collected	are comfortable, and facilities
		by teachers and district	offer water and restrooms.
			Facilitator will be in the room to
			lead instruction and offer support.
4.	Feasibility for simulating	Visit the site, interview	The learning space is a school
	workplace	educators and teachers	facility with access to the needed
			technology, yet conducive for
			questioning and learning
			participation.

Disciplined Based Concepts and Standards

Discipline-based Concept	Reasoning
Teacher Support:	
Professional Development-	Staff need convenient access to professional development when it
online & accessible	works in their busy schedule.
State standards	Guiding principles of all teachers in the state.
Technology access	Up to date teacher computers/computer access.
Support and encouragement	Assistance with maintaining highly qualified status for each subject
from administration for:	taught as this is the single most important factor in student learning.
-licensure and growth	
-parental expectations	Access as a school to Google Classroom and Google Suites for website
	development and parent communication.
	Support with parental concerns.
-communication with school	Access to LMS communication tool for all staff to use at their
community	convenience to promote collaboration.
-assessment training	Training in summative, formative, interim and authentic assessment
	regularly is crucial for reteaching and knowing where the student's
	academic abilities exist at all times.
Student Expectations:	

Learner centered classroom	Personalized instruction with students as partners is crucial with today's student mindset.
Creative projects with students producing	Students no longer want worksheets, they want to use the technology they use outside of the classroom, so make it real and use it in the class.
Teachers must have a global mindset and use technology	We are in a technology era. This is the life of a student and a teacher must embrace and utilize this to experience success.
Create a class website and digitize	They are guiding "digital natives" (Prensky, 2010). Digitize communication and information.
Partner-collaborate, connect and chat	Partnering empowers and creates buy-in for the learner.
Provide project-based or experiential learning	Guide students to create their own driving questions, research, and create their learning. Teachers guide them through this process.

Learner Centered Pedagogical Approach

Since finally arriving at my driving question, I now believe problem-based learning would be an appropriate method for this training, if it is not a tutorial Learning by Teaching. I feel this would be the best fit as it allows for individual input, all needs to be expressed and researched, collaboratively working toward an outcome and a greater understanding of the needs and challenges of all staff within a school.

Pedagogical	Reasoning
Approach	
Problem Based	Every teacher will have their own set of challenges as well as common challenges
Learning	other teachers experience. It is assumed that most Generation Y teachers will
	experience similar issues and most Baby Boomer teachers will experience different
	issues. This may be a good opportunity for collaboration and group research to
	determine best and diverse practices to meet all teachers needs and give feedback
	to administration, as well as have teachers identify their needs and allow other
	groups to collaboratively problem solve with them.

Learner Analysis

This training tutorial is designed for all educators (learners) that are struggling with frustration and meeting the needs of 21st Century learners. This workshop was created for the sole purpose of understanding challenges and implementing strategies for successful outcomes. They will be adults of all ages who are certified in the content area of instruction. The only diversity in this population will be age, gender, content taught and years of experience. This will create an open forum for many staff, novice and experienced. Learners must be able to collaborate with others, brainstorm and conduct basic internet searches. There will be no pre-test for this activity.

Information Categories	Data Sources	Learner Characteristics
1. Entry Skills	Employment records,	Learners will be employees of the school or
	certified teacher	district.

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2.	Prior knowledge of topic area	Interview target learners by asking them to list challenges in their career. Observations of learners initially Learner survey at the completion of the tutorial	Learners will have knowledge of the challenges they face. Additional dialogue will guide discussions and outcome.
3.	Attitudes toward content	Observation of learners Learner survey at the completion of the tutorial	Learners will have a great attitude toward content as this training is learner driven and designed to support them in the school. Attitudes of learners toward content will be determined through observation of learners in the training setting and their progress through the activity.
4.	Attitudes toward potential delivery system	Observation of learners Discussions with learners during the activity Learner survey at the completion of the tutorial	Designer will be cognizant of technology issues learners may face and have options available for learners.
5.	Motivation for instruction (Academic Motivation)	Observation of learners Discussions with learners during the activity Learner survey at the completion of the tutorial	Like attitude, motivation will be high for learners as this training is designed to meet their needs. Success stories will be encouraged and shared demonstrating a "can-do" approach to their ideas.
6.	Educational and ability levels	Observation of learners Discussions with learners during the activity Learner survey at the completion of the tutorial	Learners will come from very similar education backgrounds and ability levels. Some may be older, experienced and well educated but not familiar with technology. Some may be younger and possess excellent technology skills.
7.	General learning preferences	Observation of learners Discussions with learners during the activity Learner survey at the completion of the tutorial	The training will be in person with feedback encouraged continuously. Level of involvement will be comfortable in a collaborative setting.
8.	Attitude toward training organization	Observation of learners Discussions with learners during the activity Learner survey at the completion of the tutorial	Attitude is expected to be high if the context for learning is satisfactory and the facilitator is receptive to questions and providing support. Learners are co-workers and should be comfortable with colleagues.
9.	General group characteristics a. Heterogeneity b. Size	Observation of learners Discussions with learners during the activity	Learners will come from very similar education backgrounds and ability levels. Some may be older, experienced and well educated but not familiar with technology. Some may be younger and possess excellent technology skills. Group size will depend on

c. Overall	the size of the school. All will be employed,
Impressions	certified educators.

Learning Expectations

Performance

- The learner will participate in a collaborative group with their peers.
- The learner will document their challenges and create strategies to overcome these challenges.

Disposition

- It is expected that learners will identify and explain their greatest challenges.
- They will communicate these challenges with others and problem solve strategies to use to overcome the challenges.
- They will discuss their feelings as they face these challenges, how they have pursued a resolution. They will discuss outcomes they have faced to determine what has worked and that strategies have been unsuccessful.
- They will listen to others' perspectives
- They will post their struggle and strategies on a google doc for others to benefit

Knowledge:

- They will determine strategies or techniques that they may use in the classroom and administrators will be present to assist with strategy development and offer support by communicating questions, providing insight and listening.
- It is anticipated that when teachers leave this activity, they will have an understanding that they
 are a part of a community of effective practice that will support them through different
 avenues.

21st Century Skills Acquired

Skill	Reasoning
Growth Mindset	This is so important for teachers to understand that they can still
	learn. Learning techniques change and lifelong learning is a key to
	continued success.
Problem-Solving solution	Problem-solving is a great way for students to learn. Having
experience	educators practice the technique makes it easier for their delivery in
	the classroom.
Positive, enhanced social	Social situations can be difficult. With a guided social experience with
awareness experience	all learners looking to achieve the same goal, the experience could
	foster new relationships and promote future collaboration.
Collaborative mindset for	By creating a situation where learners are problem solving together
problem-solving	puts everyone on the same field in a safe situation to explore results.
A plan for their success in the	A roadmap of ideas and strategies to test in the classroom to
classroom	promote learner engagement.

Web 2.0 Technologies

Computers will be used to document their progress on Answer Garden so all participants can see the challenges and strategies created confidentially. Screencast-o-matic will be used as a demonstration of procedure for final data entry.

Part B

Learning Objectives to Be Mastered

Collaborate with colleagues with similar interest to:

- After brainstorming with a partner, learners will identify two of the greatest challenges observed in the classroom
- After identifying two challenges learners face in the classroom, learners will create two strategies to overcome each of the two challenges
- After identifying challenges and strategies, the learner will list two take-aways they feel will be implemented in the classroom.
- After identifying challenges and strategies, learners will summarize this experience through
 evaluating the workshop by completing the evaluation tool and list two suggestions for
 improvement.

Instructional Strategy Alignment

Learning	Instructional Strategy Plan	Assessment Tool/
_	mistructional strategy Flan	•
Component		Parallel Test Item
Learning Objective	ve 1:	
After brainstorm	ing with a partner, learners will identify two of their	
greatest challeng	es observed in the classroom	
Activities	 Listen to a brief explanation of today's activity Crowdsource any objectives from the learners Identify the color code chart on their folder Break out in to groups of two, matching the color code Share classroom experiences with their partner Brainstorm challenges they face with student discipline, learning and focus in the classroom List the challenges they face with today's learners The facilitator will provide the brief explanation listed in the first bullet point stating this will be an 80-minute activity listing two challenges learners face with students in their classroom 	Formative: Learners will complete a questionnaire regarding the 21st Century learner. Learners will list the challenges with today's learners, on Answer Garden.

	The facilitator will monitor the room, provide support and ask further questions if needed.	
Scaffold	Content Preparation- prior to the training, the learners will be sent the agenda and prompted to think about challenges in the classroom and list what they have tried to resolve these challenges. This will help them prepare for the activity.	
	Examples- Schedule sent two days prior to the activity for review and input.	
	Administrators will be a part of the activity to observe, respond and support teachers develop strategies.	
	Only having one partner at a time will support comfortable dialogue and input.	
	Listing their challenges and potential solutions will allow for effective dialogue and save time. The activity will take the learner through the steps and the facilitator will monitor progress of the learner.	
Challenges	Learners may struggle with: the reasoning why they must attend this activity admitting to any challenges in the classroom communicating their challenges in the classroom focusing on the task at hand	
Student Grouping	Learners will be in groups of two for the first part of the activity, which will support the comfort level of sharing and allow for active listening and engagement. The facilitator will have learners begin to discuss struggles they experience in the classroom and solutions they have tried, whether successful or unsuccessful. This will help those that do not want to share, just have dialogue with another	
	Student Participation	
	Practice Items and Activities- The facilitator will give the learners a few minutes to acclimate and have a short discussion. They will then have learners identify their challenges with students in the first column of the activity sheet. Their participation will be observed through classroom monitoring.	
Tools	Handout:	

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	How Teaching is Changing: 15 Challenges for the 21 st Century Teacher (Heick, 2017) Short of parameter decreases and the Henry and	
	 Sheet of paper to document challenges and strategies to overcome 	
Investigations	What are my current challenges with:	
	behavior?	
	• communication?	
	motivation?	
	assignment completion?	
	• participation?	
	You may not have difficulty with all of these areas, so	
	please list two challenges.	
Authentic Learning	Relevancy and Real:	
Learning	This activity involves relevant, real life problems in their	
	classroom; the activity involves presentation of findings to	
	the staff, which is beyond the classroom.	
	,	
	Inquiry-Based Learning:	
	Use of open-ended inquiry, thinking skills and	
	metacognition.	
	Students direct their own learning.	
	Collaboration:	
	Students engage in social learning with their colleagues.	
	This represents a community of learners.	
Learning Objective		Assessment Tool/ Parallel Test Item
· · ·	wo challenges learners face in the classroom, learners will ies to overcome each of the two challenges	
Activities	The learner will:	Formative: Learner
	move to another table and partner, taking their	will list two
	paperwork with them	strategies to
	discuss the challenges they listed from the	overcome each
	previous brainstorming activity	challenge they identified in their
	listen to their partners challenges havingtorm with their new partner, etratories to	classroom and put
	brainstorm with their new partner, strategies to oversome the shallenges.	their responses on
	overcome the challenges	Answer Garden.
	 review the handout with the new partner list two strategies to overcome each challenge that 	, morrer caracin
	they listed	
	,	

	The facilitator will monitor the room, provide support and ask further questions if needed.
Scaffold	Content- Either group partner may write on the document. If it is easier, the partner can take notes while the other speaks.
	Further Investigations will be listed and available to each group to prompt thought and dialogue.
	Administrators will be a part of the activity to observe, respond and support teachers develop strategies.
	Learners will be in random groups of two. This time they may choose their partner, which will promote discussion and a higher level of comfort.
Student Grouping	Student Participation
Grouping	Student Farticipation
	Practice Items and Activities- The facilitator will give the learners time to share their identified struggles and brainstorm solutions with one another. The learners will identify strategies for their challenges in the second column of the activity sheet. They will have another person with which to brainstorm. Their participation will be observed through classroom monitoring.
	are stated the dag. I stated seem meaning.
Challenges	 The learners may have difficulty relating to challenges and solutions with teachers outside of a traditional classroom, such as a PE class, a music or art class, or a shop class. A tenured teacher may have difficulty listening to a first-year teacher give suggestions.
Tools	 Handout: How Teaching is Changing: 15 Challenges for the 21st Century Teacher (Heick, 2017) Sheet of paper to document challenges and strategies to overcome
Investigations	Current:
and Further Investigations	 What are your challenges? Do you and your partner share similar challenges? Are your identified challenges unique to your type of classroom (PE in the gym, science lab, etc.) or possibly consistent school-wide? Are there any special characteristics in the dynamic of your classroom?

Further Investigations to stimulate thought, dialogue and further inquiry.

Motivation Struggles:

- Do you have a positive relationship with all your students?
- Do you give students choices in the classroom?
- How do you support complex tasks and creativity in your classroom?
- Are your activities relevant and real?

Discipline Struggles:

- Again, do you have a positive relationship with your students?
- Do your classroom expectations promote positive behavior and do you share and teach these expectations?
- Have you developed classroom norms collaboratively with your students?
- Do you model kind, supportive and respectful behavior?
- Do you use positive language to address and redirect student behavior?
- Do you recognize students for their achievements?
- Do you use proximity, signaling and other silent cues for redirecting behavior?
- Do you offer support to your students?
- Do you listen to them and offer a one on one to seek information?

Participation Struggles:

- Is your room organized to promote active engagement?
- Are your classroom participation expectations clear from Day 1?
- Do you know your student's names and things about them?
- Do you vary your teaching methods?
- Do students have the opportunity to ask questions?
- Do you grade participation separate from academic work?
- Do you listen and respond positively?

Assignment Completion Struggles:

Have you tried a Web 2.0 tools such as Class Dojo?

	 Do you grade and return assignments quickly? Are your directions clear and consistent? Do you require homework? Do you talk about a growth mindset and work with students on goal setting? Do you offer help sessions for those that do not understand? Do students track their progress? Do you offer choices in assignments and allow flexibility for completion such as an alternative form of presentation? 	
Authentic Learning	Multiple sources of dialogue: Students are actively engaging with problems and solutions. Peer based activity and listening to other perspectives: Students are listening to multiple partners and hearing multiple perspectives. Relevancy: This information is relevant to every teacher and they are identifying their own problems and creating strategies to overcome those problems.	
Lagraina Objective	2.	Accession and Total
	hallenges and strategies, the learner will list two take-aways applemented in the classroom.	Assessment Tool/ Parallel Test Item
Activities	The learner will: • move back to their original seat in the room • post the challenges and strategies on Answer Garden • list two take-aways that they will implement in the classroom	Formative: learner will identify their challenges and strategies on Answer Garden. Learner will list two take-aways from the activity.
Scaffold	Content- This is independent work and hopefully will not need scaffolding as it is opinion based. The facilitator will walk around the room to answer any questions the learner has. Examples- Listing their challenges and strategies benefits everyone.	

	Administrators will be a part of the activity to observe the list created on Answer Garden and support teachers with implementation of the strategies.	
Student	Learners will be working independently. Their	
Grouping	contributions will be measured by what they enter on the shared document, as well as any verbal share out at the end of the lesson.	
Challenges	Learners may not want to share out, even if it is just in writing. Not all learners will verbally share	
Tools	Computers for each teacher, Answer Garden access on each computer Facilitator will use Screencast-o-matic and projector to demonstrate the entry process on Answer Garden	
Investigations	 Further: How do you feel your strategies will create change in your classroom? Do you anticipate using others' strategies to create change in your classroom? Aside from your own strategies you created, what other take-aways will you use in your classroom? Will you model this in your classroom to create change? 	
Authentic Learning	Collaboration/Peer based activity: Individual activity Relevancy: relevant and real to the teacher's everyday life Learner Created Materials: Useful tools to implement change that addresses their real challenges Reflecting and Documenting Achievements: Learners evaluate, reflect and document their challenges and strategies	
	Inquiry based learning:	

experience through	e 4: hallenges and strategies, learners will summarize this sh evaluating the workshop by completing the evaluation uggestions for improvement.	Assessment Tool/ Parallel Test Item
Activities	The learner will: • move back to their original seat in the room • complete the evaluation tool	Summative: Learner will take a survey to evaluate the activity.
Scaffold	Content- This is independent work and hopefully will not need scaffolding as it is opinion based. The facilitator will walk around the room to answer any questions the learner has.	
	Administrators will also complete the survey and have access to survey responses to assist them in supporting teachers and following up in the classroom and at staff meetings.	
	Examples- Providing feedback ensures communication and training effectiveness for future presentations.	
Student Grouping	Learners will be working independently.	
Challenges	Learners may not want to take the time to complete the evaluation and list suggestions for improvement.	
Tools	Evaluation worksheet	
Investigations	Further:How do you feel your strategies will create change in your classroom?	
Authentic Learning	Collaboration/Peer based activity: Collaborative small group discussion Relevancy: relevant and real to the teacher's everyday life	
	Learner Created Materials: Useful tools to implement change that addresses their real challenges	
	Reflecting and Documenting Achievements:	

Learners evaluate, reflect and document strengths and weaknesses of the activity.	
Inquiry based learning: This activity is self-directed with a guiding question.	
Teachers reflect and have dialogue of experiences and identify their own challenges and create solutions.	

How Learning is Determined

Visual confirmation of learning will be the predominant factor in determining learning and participation. The social interaction and ownership will be observed through monitoring. Skill assessment will be determined through the entries in Answer Garden.

Staff Activity - Identify Challenges and Creating Strategies

Prior Knowledge and Skills

- Familiar with consistent classroom challenges
- Review this activity schedule prior to attendance
- How to create a posting on Answer Gardenand
- Familiarity with all of their students

Time: 80 minutes

Expectations for inquiry-based activity with partners:

- Prior to activity, teachers will read the expectations to ensure active dialogue and brainstorming
- Partners will be various teaching staff in the same building
- Learners will create list on paper or electronically. Preferably on paper to ensure no internet activity to pull them off task.
- Both partners will be responsible for contributing dialogue and feedback

LESSON PLAN

TIME	ACTIVITIES	MATERIALS	
3:15	Facilitator presents activity, reviewing the driving for the activity, tasks, expectations and schedul		Table and chairs, content folder

	Facilitator hands out a folder and explains the expectations and contents of folder	Appendix A
3:20-3:35	Learners break in to color coded groups Dialogue begins with classroom challenges discussion Faciliatory monitors the room and is available for questions Teachers will be documenting two challenges they face in the classroom.	Paper pencil or personal computer Handout- Appendix A
3:30	Facilitator will announce five minutes remaining to list the two challenges	
3:35-3:55	Teachers will leave this group and partner with another teacher of their choice to list strategies. Challenges may be shared and strategies may be discussed and listed on Answer Garden.	
3:50	Facilitator will announce a five-minute time remaining	
3:55-4:05 or sooner	Teachers will return to their seat and invited to share what they have listed and the strategies to overcome the challenges. This is optional only.	
4:05	Facilitator will log on to Screencast-o-matic and pull up the Answer Garden and explain the entry and sharing process of Answer Garden.	Screencast-o- matic Answer Garden Computer
4:10-	Teachers will have access to the computers in the library, with the Answer Garden program ready to be entered, enter their two challenges, and the two strategies for they created for each challenge.	Computers Answer Garden
4:15-4:30	The ticket out of the activity is the evaluation as well as listing any suggested improvements and two take-aways.	

Part C:

Driving Question

What are the greatest challenges for 21st century teachers, and how can they utilize strategies to overcome these challenges and prevent burnout?

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The Problem: Principals, teachers, students and parents all understand that the face of education has changed. 21st century teaching is changing as our learners expect and need a much different classroom experience. This tutorial will focus on the challenges that lead to teacher attrition, school accountability rather than parental and student accountability, changes in our learner population, 21st century student expectations compiled with budget crisis/cuts, while building skills to ensure student preparation for higher education and the workforce. As with all challenges, there lies opportunities if change is embraced. Technology is a great support that students widely utilize and the differentiation potentials within these tools allow for a cohesive individualized learning experience that is experiential and problem-based.

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Design Evaluation Chart

Driving	Learning	Parallel Test Items	Evidence/Artifact/To
Question	Objective 1		ol for assessment
What are the		Formative:	1. Questionnaire/
greatest	After brainstorming	Learners will complete	Survey included in
challenges for 21st	with a partner, learners	a questionnaire	Appendix B.
century teachers,	will identify two of their	regarding the 21st	Teacher will have
and how can they	greatest challenges	Century learner, at the	the survey also on

utilize strategies to overcome these challenges and prevent burnout?	observed in the classroom	beginning of the session. (See Appendix B)	a projected screen using Screencast-o-matic.
		Learners will list the challenges they face in their classroom when they get in to their first group. This will be at the completion of the reading the handout in Appendix A)	3. Appendix A will be handed out to read. It is entitled How Teaching Is Changing: 15 Challenges for the 21st Century Teacher. This is an artifact and not an assessment tool
	Learning Objective 2	Parallel Test Items	
	After identifying two challenges learners face in the classroom, learners will create two strategies to overcome each of the two challenges	Formative: Learner will list two strategies to overcome each challenge they identified in their classroom. When: At the end of the second session How: On a sheet of paper to enter on to the Answer Garden at the end of the session.	Learners will write strategies on a blank sheet of paper, later to be listed on Answer Garden.
	Learning Objective 3	Parallel Test Item	Evidence/Artifact/Tool for Assessment
	After identifying challenges and strategies, the learner will list two take-aways they feel will be implemented in the classroom.	Formative: learner will identify their challenges and strategies on Answer Garden. When: At the end of the second group session. How: Enter the strategies on Answer Garden. By Whom: each individual will enter their own strategies Learner will list two take-aways from the activity, at the end of	1. Learners will be entering their challenges and strategies on to a Answer Garden. This will create a school-wide document for all to use.

	the group sessions, by writing them on Answer Garden.	
Learning Objective 4	Parallel Test Item	Evidence/Artifact/Tool for
		Assessment
After identifying challenges and strategies, learners will summarize this experience through evaluating the workshop by completing the evaluation tool and list two suggestions for improvement.	Summative: Learner will take an online survey to evaluate the activity.	Learners will take an online survey to evaluate the activity. See Appendix C.

Implementation Plan

For the implementation phase of this activity, I plan to work with staff from an elementary school. They give great feedback as well as my professor, who asks questions and makes me think and reflect on best practices. The teachers are my identified target audience, I will then take any suggestions for the workshop and make changes. This will be done in person with the staff providing feedback culminating the activity so I may make changes and plan accordingly.

Assessment Plan

My assessment plan will focus on observations of learners in the activity as well as the survey. I will specifically be soliciting questions, providing clarification and documenting any challenges or complaints as I monitor the room and request feedback. Once the learners are in groups, I will not be presenting and they will be discovering their answers. I will ask questions as needed and provide thought provoking comments to make them think of experiences and solutions. The schedule will be followed and I will observe the timing of progression from one activity to the next comparing the discussions and documentation of each group of learners. Between objectives, it is anticipated learners will ask clarifying questions. They will have short written activities that they will complete individually but may collaborate prior to documentation. These will be self-checks and personal documentation. Since this is not a training, but a self-assessment workshop, there will be no checks for understanding other than the initial activity. Active participation is expected through group and classroom discussion. Postings and reviews will take place at the conclusion of the activity.

This is primarily a performance-based activity culminating in a list of solutions the learner will create themselves. The focus of this activity is to develop strategies in response to their personal challenges

they experience in the classroom with 21st Century learners. Identifying challenges and creating strategies as a solution to those challenges will ensure an understanding of the expectations of this activity and allow the facilitator to monitor the progress. The learners will have a survey upon completion to give me feedback for additional changes, with specific prompts for suggested changes.

Appendix A: HANDOUT

"How Teaching Is Changing: 15 Challenges For The 21st Century Teacher

by Terry Heick, August 28, 2017 in The Future Of Learning

It's tempting to say that no matter how much technology pushes on education, every teacher will always need to know iconic teacher practices like assessment, curriculum design, classroom management, and cognitive coaching.

This may end up being true—how education changes in the next 20 years is a choice rather than the inevitable tidal wave of social and technological change it's easy to sit back and wait for. Think of the very limited change in education since 2000 compared to the automotive industry, computer industry, retail consumer industry, etc. Huge leaps forward are not a foregone conclusion.

But it's probably going to be a bit different than that. There are certain areas where significant change is more probably than others. It doesn't seem likely that eLearning—as we now understand and use the term—will replace schools and teachers. Online courses are inferior to in-person teaching in too many important ways to completely supplant teachers and schools. (Blended learning is more likely to be the norm in the next decade.)

We've written before about the kinds of "things" <u>modern teachers</u> must be able to do. Below are 15 tasks that are less skill-based—and some a bit more conceptual, collectively representing how teaching is changing.

Teaching is no longer about classroom management, testing, and content delivery.



How Teaching Is Changing: 15 New Realities Every Educator Faces

1. Personalization

The Old: Administer assessment, evaluate performance, report performance, then–maybe–make crude adjustments the best you can

The New: Identifying, prioritizing, and evaluating data for each student individually—in real time

The Difference: Precision

Or rather, determine the kind of data is most important for each student, figure out a way to consistently obtain that kind of data, and then either analyze it personally, or monitor the algorithms that are doing it for you.

This is not unlike an automotive mechanic moving carburetors to fuel-injection systems (that are no themselves becoming outdated) in the 1980s and 1990s. The former was crude, requiring frequent corrections and "tune-ups" done by hand; the latter was far more precise, and required new skills on the part of the mechanic. Rather than making mechanical adjustments, mechanics became system managers. That is, they spent more time adjusting the systems—sensors, ECUs, etc—that themselves were making the adjustments.

2. Data forms

The Old: Numbers, letters, and maybe a bar graph or pie chart

The New: Making data that's beautiful. (Or at least visual.)

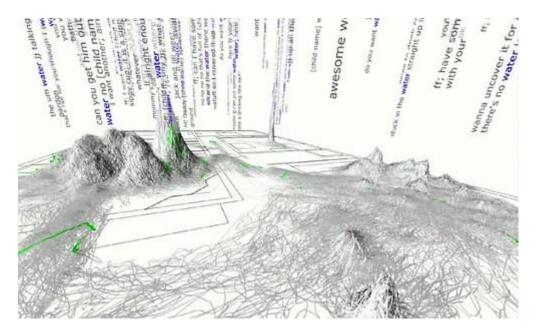
Read

The Difference: Meaning & accessibility

Summary

More and more, teachers have to design data sources and visualizations—usable data applied meaningfully. The days of taking a test and waiting for results have been gone for years. Soon it will be time to put behind us the process of even instant data results unless that data is packaged in a way that promotes seamless revision of curriculum, assessment, and instruction.

Or pushed further, which content a student encounters, when; which community they connect with, when; which level of "cognitive intensity" they reach, when. Take the following data visualization for example.



"In this example, Deb Roy's team captures every time his son ever heard the word water along with the the context he saw it in. They then used this data to penetrate through the video, find every activity trace that co-occurred with an instance of *water* and map it on a blueprint of the apartment. That's how they came up with wordscapes: the landscape that data leaves in its wake."

Incredible, no? Tomorrow's teachers will then need to make important decisions about the kinds of metrics taken (see above), and the way it is visualized so that important patterns, trends, and possibilities are highlighted.

3. Classroom management

The Old: Minimize negative interactions (fighting, bullying, etc.) and promoting compliance

with rules and "expectations"

The New: Analyze and coordinate student social interactions

The Difference: Scale

Summary

This could mean physical communities or digital. Teachers need to mobilize students, whether within classrooms, schools, and on campuses, or within local communities in a place-based learning or project-based learning scenario. Teaching digital citizenship, connectivity, and possibility will be more important than teaching content.

This is a reality faced today, not tomorrow.

4. Teaching

The Old: Delivering content shaped for universal consumption

The New: Modeling affection and curiosity

The Difference: Truly valuing how students think

Summary

Today's teacher has to demonstrate for students not how to solve problems, but *why* those problems should be solved. It will be less about creating a PBL unit where students clean up a local creek or park, but rather teaching the students how to identify and work through those needs themselves. This is the human element of affection—honoring the things and spaces around you as a way of living.

The same goes for curiosity—thinking-aloud through a self-reflection. Challenging student assumptions through digital commenting or face-to-face interactions—and connecting them with communities that can do the same.

5. Content

The Old: Initially it was teaching "a class," and then it became a list of standards

The New: Reconcile hundreds of academic standards—standards that include technology,

citizenship, literacy, etc. This goes way beyond "content areas."

The Difference: Integration

Summary

Which means not just knowing the standard, planning for its mastery, and then "teaching" it, but reconciling discrepancies "horizontally" within and across content areas, and then "vertically" across grade levels as well. And further, it's no longer just about your class or content area, but also standards from a dozen other organizations that all chime in with wellintentioned but ultimately unsustainable to-do lists.

6. Lesson planning

The Old: Manage grouping, finishing classwork, and creating a "system" for homework

The New: Personalizing workflows based on constantly changing circumstance (data, need to know, student interest, changes in community, etc.) using flipped classrooms, digital distribution, and even self-directed learning

The Difference: Authenticity

Summary

Given local context and circumstance—technology, bandwidth, social opportunities and challenges, etc—what kind of workflow is most efficient for this student?

Does it make sense to embed every student in every local community? Does it make more sense here, and less sense there?

Given local literacy habits and access, is it better to spend more time gathering sources, evaluating sources, or sharing sources? What kind of adjustments should we make based on what we know about the world the students are growing up in?

Does in-person mentoring make sense, or given topics of study-agriculture, robotics, literature, music, etc.—do digital spaces make more sense?

For this student, right here, right now, what exactly do they need?

7. Your students

The Old: Receiving a class roster

The New: Knowing a student's history, place, and potential

The Difference: Becoming a more human process

Summary

Which brings us to #6 (which really is kind of the point of it all)—taking all of the mechanical and gadget-borne stuff above, and making it "whole" for the person standing in front of you. This is not new, but the complexity of making this possible on a daily basis is.

Other New Realities The Modern Teacher Faces

- 8. Designing learning experiences that carry over seamlessly between home and school. So, making "school" disappear and even giving the illusion that you're working yourself out of a job.
- 9. Troubleshooting technology, including cloud-based issues, log-in info, etc.
- 10. Verifying student privacy/visibility across scores of monitored and unmonitored social interactions per week; Validate legal issues, copyright information, etc.
- 11. Refining driving questions and other matters of inquiry on an individual student basis
- 12. Insisting on quality—of performance, writing, effort, etc.—when the planning, technology, and self-reflection fail
- 13. Evaluating the effectiveness of learning technology (hardware, software, and implementation of each)
- 14. Filtering apps based on operating system, cost, complexity, performance, audience, and purpose
- 15. Clarifying and celebrating learning, understanding, mistakes, progress, creativity, innovation, purpose, and other abstractions of teaching and learning on a moment by moment basis"

Appendix B: Initial Questionnaire

I have requested permission for use of these survey questions. They are not my work. The article states we may use them and to just let the author know how it was used. I have sent him an email asking for permission to submit it for an assignment and future use as a school principal. If I am not granted permission, I will remove these questions and create my own survey prior to Sunday.

Instructions

This survey asks about your teaching practices that might support students' learning of the following 21st century skills.

Critical Thinking

Collaboration

Communication

Creativity & Innovation

Self-Direction

Making Global Connections

Making Local Connections

Using Technology as a Tool for Learning

For each of the above you will be asked about your general teaching of these skills, and about a few specific practices you may have used.

There are no correct or incorrect answers and all responses will be kept confidential.

CRITICAL THINKING SKILLS refer to students being able to analyze complex problems, investigate questions for which there are no clear-cut answers, evaluate different points of view or sources of information, and draw appropriate conclusions based on evidence and reasoning

1. Here are some examples of practices that may help students learn CRITICAL THINKING SKILLS.

In your teaching of your TARGET CLASS, how often have you asked students to do the following	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Compare information from different sources before completing a task or assignment?	0	0	0	0	0
b. Draw their own conclusions based on analysis of numbers, facts, or relevant information?	0	0	0	0	0
c. Summarize or create their own interpretation of what they have read or been taught?	0	0	0	0	0
d. Analyze competing arguments, perspectives or solutions to a problem?	0	0	0	0	0
e. Develop a persuasive argument based on supporting evidence or reasoning?	0	0	0	0	0
f. Try to solve complex problems or answer questions that have no single correct solution or answer?	0	0	0	0	0
2. To what extent do you agree with these statements about your TARGET CLASS?	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' critical thinking skills	0	0	0	0	0
b. Most students have learned critical thinking skills while in my class	0	0	0	0	0
c. I have been able to effectively assess students' critical thinking skills	0	0	0	0	0

COLLABORATION SKILLS refer to students being able to work together to solve problems or answer questions, to work effectively and respectfully in teams to accomplish a common goal and to assume shared responsibility for completing a task.

1. Here are some examples of practices that may help students learn COLLABORATION SKILLS.

In your teaching of your TARGET CLASS, how often have you asked students to do the following	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Work in pairs or small groups to complete a task together?	0	0	0	0	0
b. Work with other students to set goals and create a plan for their team?	0	0	0	0	0
c. Create joint products using contributions from each student?	0	0	0	0	0
d. Present their group work to the class, teacher or others?	0	0	0	0	0
e. Work as a team to incorporate feedback on group tasks or products?	0	0	0	0	0
f. Give feedback to peers or assess other students' work	0	0	0	0	0
2. To what extent do you agree with these statements about your TARGET CLASS?	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' collaboration skills	0	0	0	0	0
b. Most students have learned collaboration skills while in my class	0	0	0	0	0
c. I have been able to effectively assess students' collaboration skills	0	0	0	0	0

COMMUNICATION SKILLS refer to students being able to organize their thoughts, data and findings and share these effectively through a variety of media, as well as orally and in writing.

Here are some examples of practices that may help students learn COMMUNICATION SK	LLS.				
In your TARGET CLASS, how often have you asked students to do the following	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
 a. Structure data for use in written products or oral presentations (e.g., creating charts, tables or graphs)? 	0	0	0	0	0
b. Convey their ideas using media other than a written paper (e.g., posters, video, blogs, etc.)	0	0	0	0	0
c. Prepare and deliver an oral presentation to the teacher or others?	0	0	0	0	0
d. Answer questions in front of an audience?	0	0	0	0	0
e. Decide how they will present their work or demonstrate their learning?	0	0	0	0	0
2. To what extent do you agree with these statements about your TARGET CLASS?	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' communication skills	0	0	0	0	0
b. Most students have learned communication skills while in my class	0	0	О	0	0
c. I have been able to effectively assess students' communication skills	0	0	0	0	0

CREATIVITY AND INNOVATION SKILLS refer to students being able to generate and refine solutions to complex problems or tasks based on synthesis, analysis and then combining or presenting what they have learned in new and original ways.

1. Here are some examples of practices that may help students learn CREATIVITY AND INNOVATION SKILLS.

b. Most students have learned creativity and innovation skills while in my classc. I have been able to effectively assess students' creativity and innovation skills

In your teaching of your TARGET CLASS, how often have you asked students to do the following	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Use idea creation techniques such as brainstorming or concept mapping?	0	0	0	0	0
b. Generate their own ideas about how to confront a problem or question?	0	0	0	0	0
c. Test out different ideas and work to improve them?	0	0	0	0	0
d. Invent a solution to a complex, open-ended question or problem?	0	0	0	0	0
e. Create an original product or performance to express their ideas?	0	0	0	0	0
2. To what extent do you agree with these statements about your TARGET CLASS?	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' creativity and innovation skills	0	0	0	0	0

SELF-DIRECTION SKILLS refer to students being able to take responsibility for their learning by identifying topics to pursue and processes for their own learning, and being able to review their own work and respond to feedback.

1. Here are some examples of practices that may help students learn SELF-DIRECTION SKILL	S.				
In your teaching of your TARGET CLASS, how often have you asked students to do the following	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Take initiative when confronted with a difficult problem or question?	0	0	0	0	0
b. Choose their own topics of learning or questions to pursue?	0	0	0	О	0
c. Plan the steps they will take to accomplish a complex task?	0	0	0	0	0
d. Choose for themselves what examples to study or resources to use?	0	0	0	0	0
 e. Monitor their own progress towards completion of a complex task and modify their work accordingly? 	0	0	0	0	0
f. Use specific criteria to assess the quality of their work before it is completed?	0	0	0	О	0
g. Use peer, teacher or expert feedback to revise their work?	0	0	0	0	0
2. To what extent do you agree with these statements about your TARGET CLASS?	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' self-direction skills	0	0	0	0	0
b. Most students have learned self-direction skills while in my class	0	0	0	0	0
c. I have been able to effectively assess students' self-direction skills	0	0	0	0	0

GLOBAL CONNECTIONS refers to students being able to understand global, geo-political issues including awareness of geography, culture, language, history, and literature from other countries.

1. Here are some examples of practices that may help students learn to make GLOBAL CONNECTIONS.

In your teaching of your TARGET CLASS, how often have you asked students to do the following	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Study information about other countries or cultures?	0	0	0	0	0
b. Use information or ideas that come from people in other countries or cultures?	0	0	0	0	0
 Discuss issues related to global interdependency (for example, global environment trends, global market economy)? 	0	0	0	0	0
d. Understand the life experiences of people in cultures besides their own?	0	0	0	0	О
e. Study the geography of distant countries?	0	0	0	0	0
f. Reflect on how their own experiences and local issues are connected to global issues?	0	0	0	0	0
2. To what extent do you agree with these statements about your TARGET CLASS?	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' skills in making global connections	0	0	0	0	0
b. Most students have learned to make global connections while in my class	О	0	0	О	О
c. I have been able to effectively assess students' skills in making global connections	0	0	0	0	О

LOCAL CONNECTIONS refers to students being able to apply what they have learned to local contexts and community issues.

1. Here are some examples of practices that may help students learn to make LOCAL CONNECTIONS.

In your teaching of your TARGET CLASS, how often have you asked students to do the following	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Investigate topics or issues that are relevant to their family or community?	0	0	0	0	0
b. Apply what they are learning to local situations, issues or problems?	0	0	0	0	0
c. Talk to one or more members of the community about a class project or activity?	0	0	0	0	0
d. Analyze how different stakeholder groups or community members view an issue?	0	0	0	0	0
 Respond to a question or task in a way that weighs the concerns of different community members or groups? 	0	0	0	0	0
2. To what extent do you agree with these statements about your TARGET CLASS?	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' skills in making local connections	0	0	0	0	0
b. Most students have learned to make local connections while in my class	0	0	О	О	0
c. I have been able to effectively assess students' skills in making local connections	0	0	0	0	0

USING TECHNOLOGY AS A TOOL FOR LEARNING refers to students being able to manage their learning and produce products using appropriate information and communication technologies

1. Here are some examples of practices that may help students learn to USE TECHNOLOGY as a TOOL FOR LEARNING.

In your teaching of your TARGET CLASS, how often have you asked students to do the following	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
 Use technology or the Internet for self-instruction (e.g., Kahn Academy or other videos, tutorials, self-instructional websites, etc.)? 	0	0	0	0	0
b. Select appropriate technology tools or resources for completing a task?	0	0	0	0	0
c. Evaluate the credibility and relevance of online resources?	0	0	0	0	0
d. Use technology to analyze information (e.g., databases, spreadsheets, graphic programs, etc.)?	0	0	0	0	0
e. Use technology to help them share information (e.g., multi-media presentations using sound or video, presentation software, blogs, podcasts, etc.)?	0	0	0	0	0
f. Use technology to support team work or collaboration (e.g., shared work spaces, email exchanges, giving and receiving feedback, etc.)?	0	0	0	0	0
g. Use technology to interact directly with experts or members of local/global communities?	0	0	0	0	0
h. Use technology to keep track of their work on extended tasks or assignments?	0	0	0	0	0
2. To what extent do you agree with these statements about your TARGET CLASS?	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' skills in using technology as a tool for learning	0	0	0	0	0
b. Most students have learned to use technology as a tool for learning while in my class	0	0	0	0	0
c. I have been able to effectively assess students' skills in using technology for learning	0	0	0	0	0

Appendix C: Activity Survey

1.	When you entered the activity, did you feel you had any challenges in the classroom?
2.	Do you think the handout was a meaningful tool for identifying changes in our learners?
3.	Do you feel the questionnaire asked meaningful questions regarding expectations in the classroom?
4.	Do you feel you are taking away strategies that will help you in the classroom?
5.	How would you change the format of this activity in the future?

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