The Teach Model

Goal:

Educators use the T.E.A.C.H model to provide direction and clarity to students on how to provide quality feedback to their peers.

Abstract:

One effective way to use personalized competency-based education is to incorporate self-assessment and peer-assessment within the teaching and learning process.

The non-profit organization called Quality Matter states that students learn most effectively when provided frequent feedback from instructors, from their peers and from assessments that have feedback built into them.

With activities where peer-to-peer feedback is involved, the T.E.A.C.H model provides the necessary framework to guide students to provide quality evaluations. The T.E.A.C.H model is a framework based on the principles of Competency-Based Learning and SMART goals that outline what strong feedback looks like.

The T.E.A.C.H model is laid out as follows: Feedback should be given on *time* (T) with *explicit* guidance (E) on what, where and how students can improve. The comments need to be *appropriate* (A) for the level of the student. And a rubric is essential to guide students toward *competency* (C) by providing their peers with *helpful* directions (H) that are motivational and critical. Not only does the T.E.A.C.H model guide students to provide quality feedback, it also emphasizes the development of soft skills necessary to succeed in the workplace.

Research:

The T.E.A.C.H model was developed by a group of researchers at the Indiana University: Carine Marette, Conghui Liu, Pate Thomerson, and Keirsten Eberts.

Keirsten Eberts developed a course in Moodle to instruct educators how to develop courses that are certified quality matter. Keirsten used this experience and the principles of Quality Matter to lead the group at Indiana University to create the T.E.A.C.H model to guide educators to provide quality feedback to students. Conghui Liu and Pate Thomerson bring a high-degree of expertise in course instruction for K-12, while Keirsten Eberts and Carine Marette share an expertise in course creation in higher education.

The T.E.A.C.H model was originally developed for K-12 teachers. More specifically, a training workshop for K-12 teachers was designed to help them develop the skills needed to give quality feedback to their students. In the workshop, participants learn the impact feedback has on future student performance. Application of skills acquired throughout the workshop is demonstrated in small breakout groups.

Then, Carine Marette, took the T.E.A.C.H framework to higher education. Carine has conducted research on how educators can build a more collaborative learning environment, challenge students to provide evidence in their learning, empower students to voice their opinions, and develop students' soft skills they need to be ready to integrate into the workforce with the expertise and soft skills required to be successful. Today, the workshop instructs educators how to use the T.E.A.C.H model in a way that is cost effective for institutions, and that increases interaction and engagement of students while decreasing grading time for instructors. Through the T.E.A.C.H model, educators are able to invest more time and energy into creating quality activity and course content to further enhance students' higher-order thinking skills.

The T.E.A.C.H model:

The T.E.A.C.H model follows the five-part working definition of Competency-Based Learning, which is:

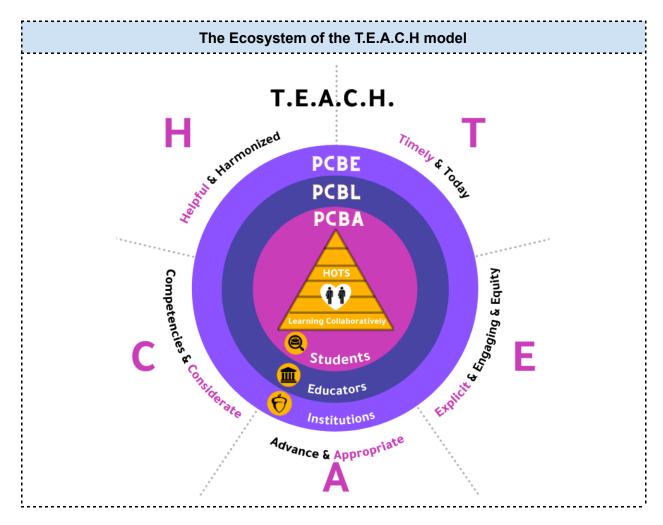
- 1) T: to give students (T) **timely** differentiated support based on their individual learning needs
- 2) E: to write competencies that are (E) **explicit**, measurable, and transferable learning objectives that empower students
- 3) A: to help students (A) advance upon demonstrated mastery
- 4) C: to provide learning outcomes that emphasize (C) **competencies** that include application and creation of knowledge, along with the development of important skills and dispositions
- 5) H: to assess with meaningful comments and (H) **helpful** and/or positive learning experience for students.

This teaching model can be different at the institution level. The T.E.A.C.H model follows the five-part successful transition to Competency-Based Learning, which is:

- 1) T: Start (T) **Today**. Even if you do not have all the answers, doing something now is better than nothing.
- 2) E: Keep student learning at the center. Students need to be (E) **engaged** and learn by doing.
- 3) A: Be a prophet of research. Bring discussion when possible to challenge traditional views by (A) **applying** research and constantly revisit it.
- 4) C: Don't compromise the model. Make concessions and compromises with stakeholders who are not ready to accept the (C) **Competency-Based Learning CBL** philosophy.
- 5) H: Get buy-in and commitment to all stakeholders in order to make Competency-Based Learning an integral part of your University Culture. It is also called (H) harmonization of processes in technology terms.

This model was based on the book, "Breaking with Tradition: The Shift to Competency-Based Learning in PLCS at Work" by Brian M. Stack and Jonathan G. Vander Els.

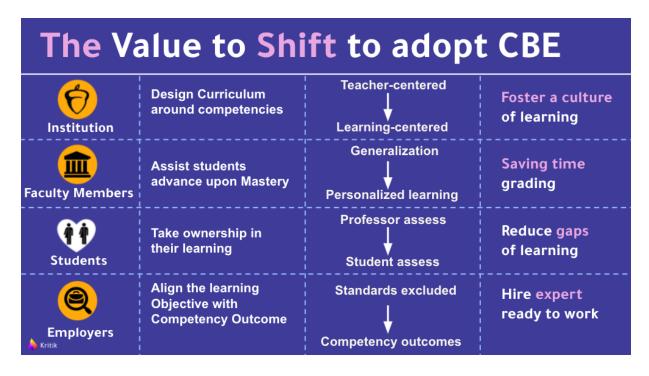
Here is the visual representation of the ecosystem of the T.E.A.C.H model, in which students are at the center. Students learn through self reflection and through collaboration with their peers.. They are learning to develop their higher-order thinking skills (HOTS). Then, educators support students by providing them with quality feedback to extend learning and help students focus, or re-focus their learning towards the learning objectives. Lastly, institutions are supporting educators to invest their time efficiently and effectively towards developing students' competencies required for success in the workplace.



When using this T.E.A.C.H model, everyone feels rewarded. The benefits extend far beyond the classroom.

- Fostering a culture of learning, students develop the competencies needed to succeed in their careers.
- Empowering performance-based assessment, **professors** save time grading.
- Including employers and technology, the **employability** of students increases.

By working together, we can fully benefit from Competency-Based Education.



Here is a testimony from a Kritik educator on the efficacy of peer assessment to develop students' competencies:

"Thank you for your guidance with Kritik over the past several semesters. Kritik has really helped several of my students become excellent writers, it has helped students from all levels to progress. Some who have really avoided and struggled with writing and critical thinking have become outstanding thinkers/writers by the end of the semester. Also, for the rest of the students it has given them an opportunity to reflect and grow. Each and every student has developed in a positive way as a result of engaging with their colleagues on Kritik. It is that review/assessment step that I believe really leads to that development - seeing what is good and bad from the standpoint of a reader."

There are three steps to adopting the T.E.A.C.H model.

Step 1: Understand why personalized competency-based learning is important?

Why Institutions move towards Personalized CBE

- Improve learning outcomes
- Respond to workforce needs
- Broader initiative on educational innovation

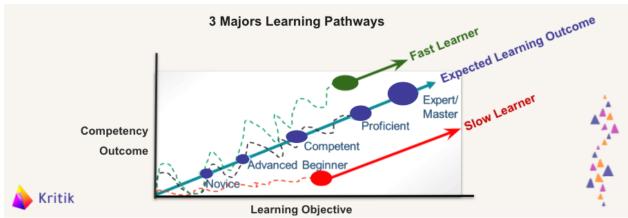
Competency-Based Learning, or often called <u>Personalized</u> Competency-Based Education (PCBL), is a more efficient and effective way for students to engage in real-world experiences to better prepare them for future market needs.

Why is it important to adopt this method of teaching and learning?

- to improve learning outcomes
- respond to workforce needs
- And become part of a broader initiative of educational innovation

When Personalized Competency-Based Education is adopted efficiently and effectively, students engage in their learning with <u>real-world experiences</u> necessary to address the market needs of today and the future.. This occurs when the curriculum includes learning objectives that represent the competency objective needed in the workforce.

One of the **benefits** of Competency-Based Learning is that all students can learn at their own pace. In order to do this, instructors need to develop a learning environment that stimulates students across all levels of abilities.



This graph represents the variety of learners moving toward mastery of a subject or topic; in this case we have the "fast learner" in green, the ideal learning pathway in blue, and learners who are progressing slower in red.

Here we see that all students are progressing at their own pace - towards expertise. For this to happen it is critical that the curriculum is designed to take into consideration all learning speeds and abilities of students.

This is why "personalized" is often referenced before Competency-Based Learning - to ensure the system of learning is personalized to each student.

Step 2: Understand that all learners need to feel successful and ready to work after post-graduation.

It is important to have **performance-based assessment** be at the center of the learning process to **make learning engaging**, **effective**, **and efficient for everyone**.

Nowadays, we have access to technology and software that helps instructor's apply performance-based assessment.

Algorithms can be used within the software to identify metrics measuring students' progress made through self-assessment and peer-assessment.

To illustrate, Kritik incorporates calibration within the peer feedback process based on competency and performance.

Our algorithm helps educators to 1) identify the prior knowledge of students and 2) group students based on their level of knowledge.

The ability to calibrate students' level of knowledge empowers educators to develop course materials that reduce the gaps of learning for all. It means that a student with a low score should receive additional materials to re-learn prior knowledge necessary for the level of the course. The result from the calibration can be used to **group students** with the <u>same</u> or <u>different</u> levels of knowledge.

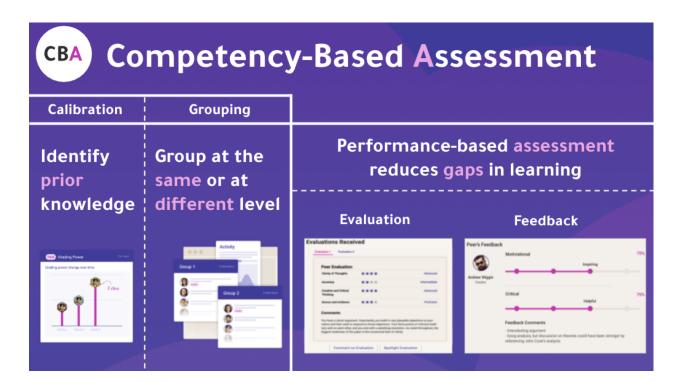
The advantage to group students with the **same** level is that:

- Students who have <u>not met the learning objectives</u> will be provided extra support to progress toward mastery; and students who <u>have demonstrated mastery</u> will have the opportunity to deepen their knowledge in other contexts.

The advantage to group students with **different** levels is that:

 Novice students can learn from students who are further ahead. However, guidelines should be provided by the professor to assist novice students in submitting quality feedback to their peers.

In this environment, both the novice and more advanced students are stimulated and are able to deepen their learning in the same learning environment.



Step 3: Adopt the T.E.A.C.H model.

One effective way to use Personalized Competency-Based Education is to incorporate self-assessment and peer-assessment within the teaching and learning process.

Most educators are familiar with the *General Review Standard* from *Quality Matter*, which outlines clearly how to develop a quality course. As the organization of Quality Matter states, students learn more effectively when given frequent feedback

- from Instructors.
- Assessments that have feedback built into them,
- and from other students.

But, how can I guide students to provide guality evaluation?

The **TEACH model** is a framework based on the CBE and SMART goal principles that outline clearly what strong feedback looks like.

Feedback should be given on <u>time</u> (T) with <u>explicit guidance</u> (E) on what, where and how students can improve. The comments need to be <u>appropriate</u> (A) for the level of the student. And a rubric is essential to guide students toward <u>competency</u> (C) by providing their peers with <u>helpful direction</u> (H) that are motivational and critical. Not only, does the **TEACH model** guide students to provide quality feedback, it also emphasizes the development of soft skills necessary to succeed in the workplace.

Overall, with CBE, ALL students feel successful when given the opportunity to achieve competencies that are aligned with their levels.

T for TIMELY

Students receive timely and differentiated support based on their individual needs.

<u>Institutions</u> need to invest in *collaboration* and reliable *peer-assessment* technology that *enables* students to take ownership of their learning and constantly receive *customized* feedback to enhance their motivation to learn and critical thinking to be more prepared for the future. Institutions need to be more transparent in creating curriculum incorporating real-world experiences increasing employability after graduation.

Educators become facilitators by observing how students engage effectively and efficiently. Having students learn by doing saves time grading for all educators while fostering learning for students. The role of educators is to correct and improve the feedback provided by students to their peers. Educators can also provide additional quality feedback to guide them to become better evaluators toward mastery.

In this learning environment, <u>students</u> give and receive personalized peer-feedback to and from a diverse range of perspectives. . Students need to provide explicit and engaging quality feedback to help their peers learn better. Feedback should be given in a timely manner, with enough time to allow for improvement between one activity to the next. There is the expectation that students should receive and give personal feedback on time for each assignment.

E for Explicit & Engaging

Competencies include explicit, measurable, and transferable learning objectives that empower students.

<u>Institutions</u> need to ensure equity for all students by engaging learning in a system that includes a pedagogy for all cultural backgrounds. That means interrupting inequitable practices, examining biases, and creating a culturally responsive environment.

<u>Educators</u> need to have different expectations of students based on different standards. They need to support a broader set of outcomes that prepare students for life long learning in colleges/universities and career: self-direction, collaboration, social-emotional skills in which students need to *apply their learning in a new context*.

<u>Students</u> should give feedback that are explicit about what can be improved, where it can be improved, and how it can be improved. In some cases, feedback should include examples. Feedback should describe observable changes that can be applied to future coursework. The assessment is based on competencies and includes explicit, measurable, and transferable learning objectives that empower students. The feedback provided should be measurable, should help other students to reflect on the learning objective from their personal experience, and should empower students to transfer their learning objectives into personal, relevant or specific experience.

A for Advance & Appropriate

Students advance upon demonstrated mastery for the appropriate level of the learner. Institutions need to apply research and constantly revisit alignment from the standard from the

workforce to the competency used in class. Students progress toward mastery and not based on the time spent in the classroom. They learn using different paths that are personalized to students advancing in a course.

Institutions and educators work together to create curriculum and learning objectives that are needed in today's society. The competencies should align the literature with the practical expertise required of the students post graduation.

<u>Students</u> should give feedback that is appropriate to the level of other students, the course, and the content of the course. The assessment is clearly linked to assessment criteria. This can easily be done by providing a highlighted marking matrix/rubric for each student to show how they performed against the criteria. An assessment criteria is used to show how they performed against the criteria.

C for Competencies & Considerate

Learning outcomes emphasize *competencies* that include application and creation of knowledge, along with development of important skills.

Institutions need to adopt the CBL philosophy to empower educators to develop the new generation of students who learn by doing in a collaborative environment. Instructors need to *consider* providing additional feedback on what the students need to improve to acquire the knowledge and skills AFTER students give quality feedback to their peers.

<u>Students</u> should use sensitive language and an unbiased perspective when given feedback. The assessment considers the learning outcomes and emphasizes competencies that include application and creation of knowledge, along with the development of important skills. Feedback should also be diverse and can include video, audio, or written feedback (not helpful, but consider various types of materials).

H for Helpful & Harmony

Assessment is meaningful and a positive learning experience.

Institutions need to provide harmonization. By agreeing on the value in adopting Competency-Based Learning and the value of performance-based assessment at the center of competency-based assessment, institutions will prepare students to be critical thinkers and apply their knowledge to real-world contexts that prepare them for their future. There is no prescribed way to do Competency-Based Education, but there are common features that all stakeholders agree upon: designing curriculum around competencies in which students advance their learning towards mastery of a topic or subject. Lastly, employers, students interviewing employers, students searching for standards in the field can be discussed in order to create alignment of learning objectives with the competency outcomes at the level of the students.

<u>Instructors</u> allow students the structure and opportunity to share their understanding with other students.

Students should provide meaningful and a positive learning experience for other students. The feedback given provides specific actions for future assignments. This is where knowledge of the

program as a whole is useful. Feedback should identify areas for improvement and offer solutions that will improve a student's future performance. Feedback should point out areas for improvement, but also include strengths of the student's work (helpful to make adjustments to improve for future assignments).

Take action now

<u>Personalized assessment</u> guides curriculum development in order to *get what you assess*. The assessment needs to follow the <u>five-part</u> working definition of Competency-Based Learning.

Kritik recognizes that the biggest problem facing students today is the lack of development of critical thinking skills, which are essential to set students up for success in the real world. Higher education is in a pedagogical transition led by passionate educators who innovate their course designs and learning tools to incorporate Competency-Based Learning.

By providing access to Kritik Peer Learning platform at a **100% subsidy** to select educators, our goal is to empower more educators to implement peer learning pedagogy using Kritik in their courses to enhance students' critical thinking skills, improve student engagement, improve feedback turnaround time, and create more opportunities for mentoring and coaching.

We're offering grants at 100% subsidy to get you started with peer-to-peer learning. The grant subsidizes 100% of the cost of Kritik student licenses which is equivalent to \$24 per student per semester.

Valid until Sept 2022 on a first come first serve basis.

To learn more about the grant, visit:https://www.kritik.io/free-course

Why is the T.E.A.C.H model important?

The T.E.A.C.H model is important to develop students' expertise, increase collaboration and enhance critical thinking skills and soft skills.

1. Develop expertise

The Aurora Institute presented in October, 2021 why we need to redesign curricula to embrace cultural responsiveness and skills missing in the workforce. In 2021, more than 7 million jobs will remain unfilled despite widespread unemployment. 74% of employers agree there's a skills gap in the labour market. 48% of employers say candidates lack the skills to fill open jobs (America Succeeds, Durable Skills Initiative, 2021). The top missing skills are problem solving, critical thinking, innovation, creativity, and the ability to deal with complexity and ambiguity and communication (Survey conducted by the Society for Human Resource Management, 2017).

Overall, the new way of learning has to engage the full background of the student, promote diversity, and demonstrate an understanding for what students need to learn today to build the

competencies necessary in the workforce. Students are explorers of knowledge and as such, the broader education community should rethink the concept of learning in order to create meaning for students. All stakeholders need to support democratizing learning and knowledge for all students through collaboration.

Dr. Reigeluth is expert in bringing Competency based Education K-12 and emphasizes that the same principles can be applied to higher education. He emphasizes the importance of feedback as the key ingredient for improving our practice. Feedback can come in many forms depending on the situation, and peer feedback is among the easiest and least expensive forms, and the peer who is giving the feedback typically learns a lot from the experience, as well. Of course, the teacher should monitor the peer feedback occasionally for both what is said and how it is said. In the situation of online tutorials, like in the Khan Academy, the tutorials can provide great feedback. In other situations, a more advanced student can provide feedback, or the teacher can provide feedback. But in many cases, especially collaborative projects, peer feedback is the most cost-effective way to go."

Kritik has allowed instructors across all class sizes and disciplines to incorporate a more efficient and accountable assessment process without adding more stress or accounting for more time and resources. Instructors then have more time to spend working and mentoring students to address particular blocks, or misunderstandings and to elevate students who are moving faster along in the course.

Overall, developing expertise is a collaborative process to support students in getting the experience necessary to integrate into the workforce.

2. Increase collaboration to enhance students' critical thinking skills

In terms of motivation, educators explain that, "Personalized, collaborative, project-based learning is far easier to motivate, and these are important parts of a system that uses Personalized Competency Based-Education."

Kritik allows professors to scaffold learning of larger assignments, meaning students have the guidance and support they need to succeed from one stage to the next leading to the final assignment form. Scaffolding can help motivate students because they are receiving guidance, have structured opportunities for self-reflection and interact with their peers at numerous levels leading up to a larger culminating submission.

Kritik goes beyond creating assignments for students, the platform helps to build relationships and trust with empathy and care for other students. The first step is to give students the opportunity to give Feedback. Students need to learn to take risks, embrace the feedback and provide a response based on facts, and feel valued for having shared their points of view and/or feedback. Not only students will feel responsible in their learning, but also students will feel more freedom to speak.

Whether through anonymous and bias-free peer assessment or through open discussion, Kritik fosters open and constructive dialogue. One effective way to address assessment bias is to incorporate anonymous peer assessment. When students provide feedback to each other without knowing whose work they have in front of them, they are more likely to focus on providing critical and motivational feedback. Additionally, students will feel more comfortable providing genuine assessments to their peers when they know it is anonymous (source: https://www.kritik.io/resources/how-to-build-a-safe-and-collaborative-learning-environment).

Most students question themselves "Why am I doing this? I want to learn and I want to know why I am doing the work. Did I accomplish the learning goal?". Students need a clear trajectory working together with criteria and learning objectives relevant to them. The criteria needs to include an objective with a clear description to help move students from beginner to expert.

Kritik conducted an analysis of approximately 140,000 peer-evaluated student assignments and concluded that only 1-4% of students dispute their grades. (Source: https://www.kritik.io/resources/peer-evaluation-reduces-grade-disputes). At Kritik, students build connections and learn concrete skills through discussion with their peers. Students are learning to learn. By developing these foundations, students are empowered through each contribution. Instead of relying on one point of view from educators, students are exposed to rich perspectives. This new structure removes policy and barriers for students to express their opinion.

When educators feel that students deserve to be heard for their great contributions, educators can share the best evidence provided to their peers with all students in the class.

Overall, it is important to create a collaborative culture in which educators ask their students to express multiple perspectives, meaning that students receive input from a variety of students, leading to more inclusivity.

3. Develop soft skills by listening to students' voice

Similarly, to provide evidence for an assignment, educators create and distribute a question at the beginning, middle and end of the course to understand students' feelings about the quality and structure of the course.. The power dynamic reverses and students feel more like a thought partner.

Educators are also using team-based and group-based learning with peer assessment to develop students' soft skills, critical thinking skills, and to provide new opportunities for students to engage with their peers in meaningful and productive ways. Educators have found success in developing successful learning criteria with their students, to ensure accountability, ownership and clarity in the path of learning.

In this new dynamic, educators and students are supporting each other. The focus is on the learner and their self-regulation. Through peer assessment, educators can provide more

opportunities for interaction and feedback than they ever could individually one-on-one. At Kritik, educators are able to step back and observe the progress of students to learn from them and evaluate the success of each activity. Educators learn from their students, students learn from the educator and students learn from each other.

Lastly, this system values all types of learners by evaluating the content and not the learner. To do that, clear success criteria guides students to understand where they are in their learning, what they need to do next to improve and what they are capable of doing.

At Kritik, a community of practice has been created to help educators move towards better practice. This Kritik Educator Community is a safe and managed space for educators to discuss rubrics, formative assessment practice, and to receive feedback from other educators about the quality of their courses and assessment. Educators discuss a range of topics, including:

- What does it mean to learn?
- What does it mean to be successful?
- How to create assignments that support students across a range of levels to progress towards mastery?
- How to create alignment between various agencies who can support what needs to be changed?

The Kritik Educator Community has the objective to shift dialogue between educators to be motivational, emphasizing what they are doing well, and critical, pushing their peers to think more critically and improve their instruction. This framework of feedback delivery applied between educators is the foundation of the T.E.A.C.H model. The T.E.A.C.H model aligns educators and students who are using the same framework to deliver high quality feedback. This model provides the clarity needed for both the educators and students to succeed in peer assessment and Competency-Based Learning. When students apply the T.E.A.C.H model to their peer evaluations, the educator has the time to mentor and coach students, providing additional feedback when necessary to ensure students are receiving the personalized support they need to achieve the objectives, become strong evaluators and work towards mastery of the established competencies.

The T.E.A.C.H Model from Tradition Course for K-12 Teachers

Research from Indiana University

Topic

Names of members:

Carine Marette, Conghui Liu, Pate Thomerson, and Keirsten Eberts

Title of the ID project:

Improve Student Performance by Providing Quality Feedback

Target learner:

In-service K-12 teachers

Learning goal:

Throughout this training workshop, K-12 teachers will develop the skills needed to give quality feedback to their students. Participants will learn the impact feedback has on future student performance. Application of skills acquired throughout the workshop will be demonstrated in small breakout groups.

Tasks or contents of instruction:

This training workshop is designed to provide K-12 teachers with the foundational skills needed to create quality feedback on student coursework. Participants will learn the key strategies of effective feedback and how feedback can enhance future student performance. Participants will then apply their knowledge by actively participating in small breakout groups. In the breakout groups, participants will be provided with case studies where they will demonstrate their ability to provide quality feedback through self-reflection and a demonstration of providing quality feedback.

Contents: Concepts and case studies.

Concepts: The concepts that will be present throughout this workshop were created from concepts and research from Quality Matter, TAG (Tell, ask, give), SMART, STAR, RISE, SBI (Situation, behaviour, and impact) feedback tools, and other strategies and frameworks

Scope and Feasibility: This concept can be covered within the two hours time frame (thirty minutes presentation, thirty minutes breakout group, thirty minutes full group discussion).

Complexity: The participants will learn how to provide quality feedback to students to increase future student performance by working through a case study and demonstrating what was taught in the seminar by identifying the five concepts delivered (T- E- A- C-H), which stand for *Timely*, *Explicit*, *Appropriate*, *Considerate*, and *Helpful Feedback*.

Instructional analysis

Goal of instruction:

The purpose of this workshop is to prepare K-12 teachers to develop the skills needed to give quality feedback to their students. The overall goal of the instruction is to train teachers on how to create feedback using T-E-A-C-H principles. Teachers will also evaluate the impact feedback has on future student performance. Teachers will demonstrate the skills acquired throughout this workshop in small breakout groups.

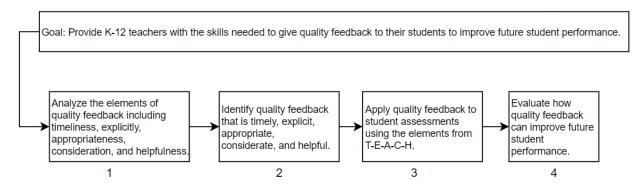
Domain of learning:

The above is a procedural goal that incorporates intellectual skills, attitude goals, and verbal information, including:

- Intellectual Skills:
 - Discriminate between quality feedback and non-quality feedback
 - Apply elements of the T- E- A- C-H model to write quality feedback
- Attitude Skill:
 - Choose to use the T- E- A- C-H model to provide quality feedback
 - Choose to provide constructive feedback using sensitive language
- Verbal Information:
 - List and explain the elements of the T- E- A- C-H model

Goal analysis:

GOAL ANALYSIS



Brief explanation of each component:

Goal One: Analyze the elements of quality feedback including timeliness, explicitly, appropriateness, consideration, and helpfulness.

Team EDvantage's (group 4) project goal is to teach teachers how to give quality feedback to students using the T- E- A- C-H model. To create this goal, the team relied on Keirsten's experience as a Dean. In this role, she is responsible for providing feedback to faculty, staff, and students at her university and she also serves as a peer

reviewer for Quality Matters where she provides helpful recommendations to faculty/course developers.

The T- E- A- C-H model includes five elements of quality feedback: timeliness, explicitly, appropriateness, consideration, and helpfulness. These five elements are the criteria that we determined to be essential to the effectiveness of giving quality feedback to students. A guide will be provided to all attendees during the workshop with definitions of each term and the reasoning for the creation of the T-E-A-C-H model.

First, teachers will briefly review each element of the T- E- A- C-H model to allow them to analyze the elements of quality feedback including: timeliness, explicitly, appropriateness, consideration, and helpfulness.

Goal Two: Identify quality feedback that is explicit, appropriate, considerate, and helpful.

Next, learners will be able to identify quality feedback through the five T-E-A-C-H elements. They will understand what is timely, explicit, appropriate, considerate, and helpful feedback. Additionally, they will be able to differentiate quality feedback from feedback that is not timely, explicit, appropriate, considerate or helpful.

Goal Three: Apply quality feedback to a student assessment using the elements from *T-E-A-C-H*.

Then, teachers will apply the concept of quality feedback using T-E-A-C-H elements. In small break out groups, teachers will be provided student assessment case studies and provide feedback on the assessment case. The teachers are to use the framework of T-E-A-C-H to guide their feedback. The teachers will then compare their results to what the seminar leaders provide and discuss where they succeeded and where they could improve.

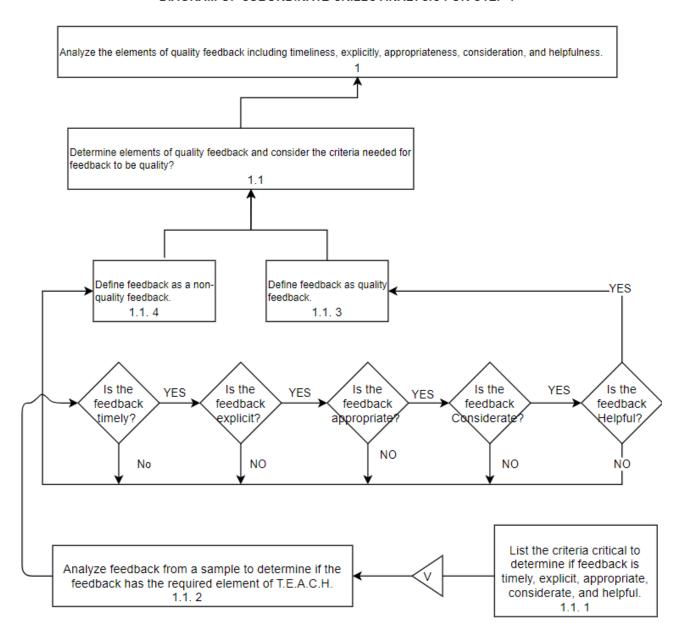
Goal Four: Evaluate how quality feedback can improve future student performance.

Lastly, teachers will evaluate how quality feedback can increase future student performance. Throughout this training, teachers will learn how to apply T-E-A-C-H principles to give students quality feedback that is timely, explicit, appropriate, constructive, and helpful. Additionally, by evaluating how quality feedback can make a positive impact on their students' future performance, we hope the teachers who complete our training will choose to incorporate T-E-A-C-H principles into their grading and feedback in the future. Providing students with quality feedback will help them identify the parts of their work they are doing correctly and the parts they are doing incorrectly. Quality feedback is an important component of student learning. By providing quality feedback, teachers give students clear expectations and guidance on how their future work can be corrected. If students apply the feedback, we expect their learning and performance to improve.

Sample subordinate skills analysis

Component 1: Analyze the elements of quality feedback including timeliness, explicitly, appropriateness, consideration, and helpfulness.

DIAGRAM OF SUBORDINATE SKILLS ANALYSIS FOR STEP 1



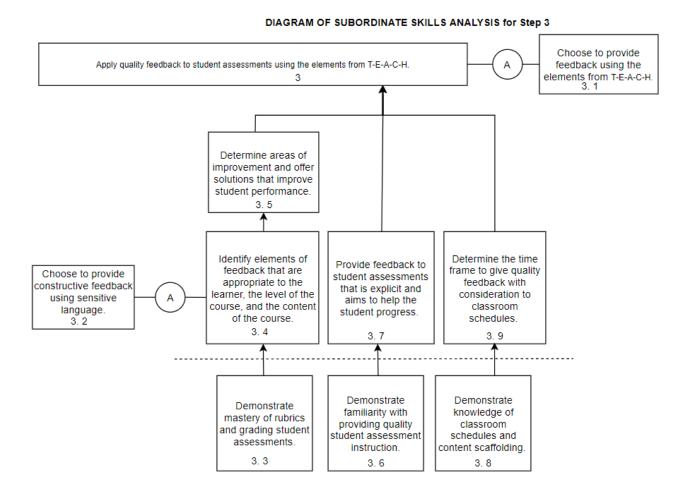
Brief explanation of the analysis

1: The first goal is for learners to be able to analyze feedback based on the five elements of quality feedback- timeliness, explicitly, appropriateness, consideration, and helpfulness.

- 1.1: In order to be able to analyze the five elements, learners must meet the requirement of determining elements of quality feedback and consider the criteria for each element. To meet this goal, they will answer a set of decision diamonds with questions.
- 1.1.3: If the feedback meets all the criteria for each element, which means the answer to all the questions are "yes", then learners will be able to define it as quality feedback.
- 1.1.4: If any of the answers to the questions are "no", the feedback fails to meet the criteria for the five elements. The learners will then define the feedback as non-quality feedback in this case.
- 1.1.2: Learners should be able to analyze the sample feedback and determine if the feedback has the required five elements based on the listed criteria of each element. Attached to 1.1.2 is "V", which stands for required verbal information.
- 1.1.1: The learners should be able to list the criteria to the five elements. They will store the information in memory during the instruction and remember it when needed for further analysis of feedback.

By the completion of this skill, learners will be able to analyze a given sample feedback by recalling the criteria for each element of T-E-A-C-H and identify if the feedback is quality feedback or non-quality feedback according to the criteria.

Component 2: Apply quality feedback to a student assessment using the elements from T-E-A-C-H.



Brief explanation of the analysis:

- 3: The first part of this instructional goal is to ensure that our learner population applies the T-E-A-C-H model when giving feedback on student assessments to ensure it is of high quality. Attached to 3 is 'A', which stands for an attitude goal.
- 3.1: Our goal is to promote an attitude switch from old ways of providing feedback to new ways using the T-E-A-C-H model.
- 3.2: Our learners should use the 'C' in T-E-A-C-H to provide feedback that is considerate. Attached to 3.2 is 'A', which is an attitude goal. This attaches to 3.4 see description. Feedback should use sensitive language and be unbiased. Feedback should also be diverse and can include video, audio, or written feedback.

- 3.3: It is assumed that learners should have a pre-existing knowledge of grading and the use of rubrics.
- 3.4: Our learners should use the 'A' in T-E-A-C-H to provide feedback that is appropriate to the context of the student. This provides students with personalized feedback relevant to the student and course. Feedback should be appropriate to the learner, the level of the course, and the content of the course.
- 3.5: Our learners should use the 'H' in T-E-A-C-H to provide feedback that is helpful to the development of the student in their future assessments. Feedback should identify areas for improvement and offer solutions that will improve their future performance. Feedback should point out areas for improvement, but also include strengths of the learner's work.
- 3.6: It is assumed that our learners provide high quality instruction for their student assessments which provokes high quality submissions that deserve high quality feedback.
- 3.7: Our learners should use the 'E' in T-E-A-C-H to provide feedback that is appropriate to the content and explicit to the context of student improvement and praise. Feedback should be explicit about what can be improved, where it can be improved, and how it can be improved. In some cases, feedback should include examples. Feedback should describe observable changes that can be applied to future coursework. Feedback should be measurable, help students reflect on the learning objectives, and empower students to transfer their knowledge into personal and relevant experiences.
- 3.8: It is assumed our learners are aware of course and school schedules. Additionally, it is assumed that our learners have knowledge of their course content scaffolding.
- 3.9: Our learners should use the 'T' in T-E-A-C-H to provide feedback that is timely and provides students ample time to grow in their assessment submission before future assignments are due. Additionally, feedback should be timely to the content scaffolding of the course to ensure that students master key content needed before progressing.

By the completion of this skill, the learner will be able to apply concepts from the T-E-A-C-H model to provide high quality feedback. It is anticipated that by applying the T-E-A-C-H model to their feedback, learners will be able to give their students useful critiques and improve student performance.

Learner and context analysis

Names of members:

Carine Marette, Conghui Liu, Pate Thomerson, and Keirsten Eberts

General description of target audience: In-service K-12 teachers

Description of Learner characteristics

Information Categories	Data Sources	Learner Characteristics
1. Entry skills	Interviews: One dean, one experienced teacher, and two instructional designers.	Performance setting: Learners have been in-service K-12 teachers for at least one year. They are familiar with teaching and the efficacy of using feedback tools. They are familiar with the setting in which implementation of the T.E.A.C.H. model will be used during the webinar.
	Observations: Introduce the Danielson rubric, the feedback model of Kulhavy & Stock, and learning model and standards	Learning Settings: Learners are familiar with the format of the training and have participated in professional development using similar structures of training. Learners have already moved from a teacher-centred to student-centred approach. Learners have already reflected on their own experiences as a learner to identify what works for them. Learners have already accepted the importance of having learning objectives that are measurable and a detailed rubric with levels to guide students. Learners are experts in encouraging students to gain skills and knowledge via a competency-based learning approach. Lastly, learners recognized the importance in giving quality feedback that's aligned with their course learning objectives.
2. Prior knowledge of the topic area	Interviews and Observations: Same as above	Learners have prior knowledge in providing quality student assessment instruction such as the Quality Matter framework to develop quality course materials. Learners are familiar with writing

		instructional goals for students. Learners are skilled in using rubrics such as the Danielson rubric. Learners have general knowledge in grading students' assessments. They have received formal training in providing feedback to their students. They are familiar with providing quality feedback using TAG (Tell, ask, give), SMART, STAR, RISE, SBI (Situation, behaviour, and impact) feedback tools, and other strategies and frameworks. Learners have knowledge of classroom schedules and content scaffolding. This will help learners determine the time frame to give quality feedback. Some learners are aware of the competency-based learning and student-centered approaches. Lastly, learners have prior knowledge on teaching standards and how to use peer-assessment tools such as Kritik.
3. Attitudes toward content and delivery methods	Interviews and Observations: Same as above	Learners are active in-service teachers and believe that improving feedback skills are beneficial to the student. The learners believe that acquiring quality feedback skills are crucial to student performance and success. Learners have a positive attitude regarding seminars and case study style learning. Learners have experience with live lectures, and problem solving activities.
4. Academic motivation	Interviews and Observations: Same as above	Learners have a constructivism approach in which students are active in learning the materials. Learners are motivated to provide quality feedback to their students. They believe that providing quality feedback will help the students learn the materials better, resulting in enhancing their academic performance.
5. Educational and ability level	Various training seminars, exposure to other training models	Learners will come from academic settings and will be in-service teachers. Educational level: Learners have at least a bachelor's degree in education and a license to teach in their state. Ability level: Learners have high ability, as they are professionals and participate in cooperative

		learning.
6. General learning preferences	Attitude: Interview with school administration to identify what learning style works with learner population	Learners will want to actively participate in a seminar that teaches the model. Learners will then participate in small break out groups where a case study will be presented. Learners are experienced with a variety of learning environments, but prefer face-to-face interaction.
7. Attitudes toward organization giving the instruction	Questionnaire: A questionnaire will be given before the seminar so the seminar can focus on areas of interest of quality feedback that learners are most interested in.	The learners will have to buy-in to the seminar. By offering a questionnaire about interest, the seminar will highlight areas of interest for the seminar. The learners will appreciate this and have higher buy-in due to it addressing their interests while still sticking to the T-E-A-C-H seminar. The learners expressed interest in the content. The learners think the seminar will help them provide better feedback. The learners feel positive about the organization. The learners hope that quality feedback will lead to better overall student performance.
8. Group characteristic	Questionnaire: Same as above	Heterogeneity: Learners come from varied backgrounds and personalities. Learners come from a variety of years of experience and are of different ages and genders. Size: The group size will vary based on the school size. Overall impressions:
		Instruction will need to be engaging, effective and efficient.

General description of learning context: Indiana University

Description of learning context

Information Categories	Data Sources	Learner Characteristics
1. Number/ nature of sites	Interviews: Principal, Assistant Principal, and three lead instructors	Space: 1 auditorium, 6 collaboration rooms Equipment: At least one computer should be available in the auditorium. Both the auditorium and collaboration rooms should be equipped with projectors and speakers. The collaboration rooms need to have a table in the center, 6-8 chairs, and a whiteboard on the wall to support brainstorming. Resources: Need to have access to the video of teaching examples during the workshop. Websites (exp. Canvas) for other materials including readings and videos also need to be available. Each individual school will cover the cost of the training for their staff. Constraints:
		For group discussions, to eliminate the influence from other groups, they will go to collaboration rooms to analyze their sample, and then go back to the auditorium to share. This process might be time consuming.
2. Site compatibility with instructional needs	Interviews: Same as above	Instructional Strategy: The site supports different kinds of instructional strategies including lecturing, group work, discussions, and presenting.
		Delivery approaches: Support is available for the production and use of all typical print and non-print materials.

		Time: The allotted time for face-to-face instruction is around 2 hours. Learners will have access to relevant materials like readings and videos at least one week prior to the instruction. The schedule will include thirty minutes for part 1, one hour for part 2, and thirty minutes for part 3. Personnel: One instructor will lead the presentation of the T-E-A-C-H model and 6 facilitators will help with group work and discussions. Additionally, another three lead instructors will be available to give feedback on their final work.
		Constraints: There are no real K-12 students at the workshop.
3. Site compatibility with learner needs	Interviews: Same as above	Location: The auditorium and collaboration rooms are located at Indiana University (IU) school of Education.
		Convenience: The parking lot is near the IU school of Education. Learners will have access to many different restaurants within driving distance. There are restrooms on each floor of the building. There are at least 2 water fountains and bottle filling stations on each floor. Also, there is a coffee shop at the entrance of the building.
		Space: The auditorium should be big enough to ensure social distancing. The collaboration rooms have enough space for learners to move around and interact with anyone within the group.
		Constraints: It will be difficult for learners to find time to attend the training as they teach during the day. The training will need to be held in the summer or on a weekend.

4. Feasibility for simulating workplace	Interviews: Same as above	Supervisory characteristics: At least three lead instructors will be at the training to evaluate learners' final work on providing quality feedback. This will simulate the assessment process in schools.
		Physical characteristics: The workshop will be held under a school setting and simulate teacher learners' experience in the real world.
		Social characteristics: The group members will impersonate the role of instructors giving quality feedback to simulate what happens in the classroom.
		Constraints: The interaction between teachers and students cannot be perfectly copied since there are no real K-12 students at the workshop.

General description of performance context: K-12 schools

Description of performance context

Information Categories	Data Sources	Learner site Characteristics
1. Managerial or supervisory support	Interviews: Principal, Assistant Principal, and three lead instructors	Supervision is conducted by the principal and the assistant principal. Three lead instructors are also available for conversations after the training if needed to facilitate the practice of giving quality feedback.
2. Physical aspects of the site	Interviews: Same as above	Facilities: The K-12 school will have classrooms available for the practice of providing quality feedback.
		Resources: The schools will provide the resources required for learners to facilitate giving quality feedback. The schools will provide learners with any information

		about the training. Equipment: No particular equipment is needed to provide quality feedback. If technology support is needed, the school will provide assistance. Timing: Learners will provide quality feedback when classes are in session.
3. Social aspects of the site	Interviews: Same as above	Supervision: The principal, assistant principal, and three lead instructors. Interaction: The learners will be interacting with each other during the practice of giving quality feedback. Others effectively using skills: There are learners who are providing quality feedback to students. These lead instructors have developed the skills through their formal education, experience, and prior training. Their insights during the practice of providing quality feedback will be valuable. Additionally, there are other ways to provide quality feedback that learners should consider such as providing students with peer-to-peer feedback opportunities.
4. Relevance of skills to the workplace	Interviews: Same as above	Meet identified needs: The training on providing learners with quality feedback should meet the identified needs of improving feedback leading to improved student performance. Learners will be able to use their new skills upon completion of the training. These new skills will provide them with valuable tools needed to give quality feedback throughout their careers in education.

References

Dick, W., Carey, L., & Carey, J. O. (2005). The systematic design of instruction.

Learning Objectives

Instructional Goal(s) and terminal objective(s)

Instructional Goal	Terminal objective
The purpose of this workshop is to prepare K-12 teachers to develop the skills needed to give quality feedback to their students. The overall goal of the instruction is to train teachers on how to create feedback using T-E-A-C-H principles. Teachers will also evaluate the impact feedback has on future student performance. Teachers will demonstrate the skills acquired throughout this workshop in small breakout groups.	During the grading of K-12 student assessments (CN), provide students with quality feedback using T-E-A-C-H principles that will improve student performance (B). Student performance and the T-E-A-C-H rubric will be used to judge achievement of this goal (CR).

Objectives aligned with main steps and subordinate skills

Main step & Subordinate skills	Performance & Subordinate objectives
1. Analyze the elements of quality feedback including timeliness, explicitly, appropriateness, consideration, and helpfulness.	Using the T-E-A-C-H model (CN): 1. Identify all five elements of quality feedback (B) and determine what quality feedback requires to be timely, with explicit comments that are appropriate for students and consider improving the learner's work via helpful areas of improvement for their future performance (CR). 2. Analyze each element of the T-E-A-C-H model (using the rubrics provided) (B) to meet all criteria of the T-E-A-C-H model to write quality feedback (CR).
1.1. Determine elements of quality feedback and	Using the rubric and definition of each element of the T-E-A-C-H model (CN) :

consider the criteria needed for feedback to be quality?	 Verbally list (B) quality feedback from "unsatisfactory" and "basic" to "proficient" or "distinguished" (CR). Identify, with accuracy, each element (B) that is low quality feedback (CR). Select one or more of the five elements of the T-E-A-C-H model (B) that is non-quality and rewrite the element to be quality (CR).
1.1.1 List the criteria critical to determine if feedback is timely, explicit, appropriate, considerate, and helpful.	Within the workshop setting (CN) , verbally list the five elements of the T-E-A-C-H model (B) to determine if the feedback is timely, explicit, appropriate, considerate, and helpful (CR) .
1.1.2 Analyze feedback from a sample to determine if the feedback has the required element of T.E.A.C.H.	From a sample provided during the workshop, and using the T-E-A-C-H model rubric (CN): 1. Identify if one or more of the five elements of the T-E-A-C-H model (B) is considered to be quality or non-quality feedback (CR). 2. Determine if the feedback has the "distinguished" level for all five elements of the rubrics (B) to be considered quality feedback (CR).
1.1.3 Define feedback as quality feedback.	Using the T-E-A-C-H model rubric (CN), determine feedback on a sample student assessment as quality feedback (B). Learners should correctly identify at least 85 percent of quality feedback (CR).
1.1.4 Define feedback as non-quality feedback.	Using the T-E-A-C-H model rubric (CN), determine feedback on a sample student assessment as non-quality feedback (B). Learners should correctly identify at least 85 percent of non-quality feedback (CR).
3 Apply quality feedback to student assessments using the elements from T-E-A-C-H.	Review a sample student assessment (CN) and provide feedback to the sample student assessment using the T-E-A-C-H model (B) . Learners should provide feedback that meets the

	T-E-A-C-H criteria at least an 85 percent level (CR).
3.1 Choose to provide feedback using the elements from T-E-A-C-H.	Using feedback from peer discussions (CN), choose to explain the criteria of the T-E-A-C-H model (B) and use the model to provide quality feedback (CR).
3.2 Choose to provide constructive feedback using sensitive language.	Using the 'C' in T-E-A-C-H (CN) , choose to provide feedback that is considerate (B) . The feedback should be constructive, using language that is sensitive, unbiased and diverse (CR) .
3.3 Demonstrate mastery of rubrics and grading student assessments.	When asked either orally or in writing (CN) , to indicate their knowledge of grading and the use of rubrics (B) learners should explain the rubric criteria and grading of students assessments (CR) .
3.4 Identify elements of feedback that are appropriate to the learner, the level of the course, and the content of the course.	Using the 'A' in T-E-A-C-H (CN), provide feedback that is appropriate to the context of the student (B). The feedback should be personal and relevant to the student and the course (CR).
3.5 Determine areas of improvement and offer solutions that improve student performance.	Using the 'H' in T-E-A-C-H (CN), provide feedback that is helpful to the development of the student in their future assessments (B). The feedback should identify areas for improvement and offer solutions that will improve their future performance. Feedback should point out areas for improvement, but also include strengths of the learner's work (CR).
3.6 Demonstrate familiarity with providing quality student assessment instruction.	When asked either orally or in writing (CN) , to indicate how to provide quality student assessment instruction (B) , learners should explain the criteria of quality instruction for assessments (CR) .

3.7 Provide feedback to student assessments that is explicit and aims to help the student progress.	Using the 'E' in T-E-A-C-H (CN), provide feedback that is explicit (B) in order to guide students in their development of future assessments. Feedback should provide some room for interpretation, but should be clear in what was done well and what could be improved upon (CR).
3.8 Demonstrate knowledge of classroom schedules and content scaffolding.	When asked either orally or in writing (CN), to describe classroom schedules and content scaffolding (B), learners should explain their individual classroom schedule and content scaffolding approach (CR).
3.9 Determine the time frame to give quality feedback with consideration to classroom schedules.	Using the 'T' in T-E-A-C-H (CN), identify feedback that is timely (B). By determining what is timely (B), learners will better prepare their students for scaffolding assignments and skill building (CR).

Assessment Plan

Assessment alignment, learning outcomes, assessment procedure, and kinds of assessments and tools:

This assessment plan consists of aligning the learning procedures with the learning outcomes. We identified assessment tests and performance items that can be used by learners to master the learning outcomes. A series of tests will be used before, during and, after the workshop. Table 1 contains information regarding the learning outcomes "knowledge, skills and behavior, and/or attitudes," which include the level of knowledge from Bloom's Taxonomy. The type of learning outcome the learners will perform for the instructional goal and each subordinate skill has been identified in Table 1.

Table 1 also contains information regarding the "criterion-referenced tests," that will be used. The assessment procedure is located in table 1 under "Assessment procedure" and "How to understand mastery." To achieve assessment alignment, the "T-E-A-C-H Model Rubric" will be used to ensure clarity of the instructions given to the learners and to evaluate learners. To summarize, this assessment plan describes in detail the procedure of carrying out the instructional assessment. Several test items will be used during the workshop. We created a list of assessment items in this table below. Learners will be evaluated on each of the assessments and a passing score will consist of at least 85% or higher.

Table 1: Learning Outcomes				
Instructional Goal	Terminal objective	Parallel Test Item		
The purpose of this workshop is to prepare K-12 teachers to develop the skills needed to give quality feedback to their students. The overall goal of the instruction is to train teachers on how to create feedback using T-E-A-C-H principles. Teachers will also evaluate the impact feedback has on future student performance. Teachers will demonstrate the skills acquired throughout this workshop in small breakout groups.	During the grading of K-12 student assessments (CN), provide students with quality feedback using T-E-A-C-H principles that will improve student performance (B). Student performance and the T-E-A-C-H rubric will be used to judge achievement of this goal (CR).	Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Behavior and skills Assessment Procedure: The procedure for assessing this will be observational and occur when the learner provides students with feedback in a classroom setting. How to Understand Mastery: The mastery of this objective will be measured when the learner chooses to provide quality feedback to students using the T-E-A-C-H Model. Mastery will be observed using the T-E-A-C-H Model Rubric.		

TABLE 2: Objectives aligned with main steps and subordinate skills			
Subordinate skills	Performance objectives	Parallel Test Item	
1. Analyze the elements of quality feedback including timeliness, explicitly, appropriateness, consideration, and helpfulness.	Using the T-E-A-C-H model (CN): 1. Identify all five elements of quality feedback (B) and determine what quality feedback requires to be timely, with explicit comments that are appropriate for students and consider improving the learner's work via helpful areas of improvement for their future performance (CR). 2. Analyze each element of the T-E-A-C-H model (using the rubrics provided) (B) to meet all criteria of the T-E-A-C-H model to write quality feedback (CR).	Criterion-referenced tests: Entry skills test Bloom's Level of Knowledge: Analyze Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Knowledge Assessment Procedure: The learner will be asked general questions on their knowledge of giving feedback. These questions will be asked at the beginning of the workshop. The rubric called, "T-E-A-C-H Model Rubric," will be provided to the learner. If the learner does not have experience with other feedback models, a list of models will be provided such as concepts and research from Quality Matters, TAG (Tell, ask, give), SMART, STAR, RISE, SBI (Situation, behaviour, and impact) feedback tools, and other strategies and frameworks. How to Understand Mastery: After analyzing the T-E-A-C-H Model, the learner will start to become familiar with the content, context, and elements of the T-E-A-C-H Model.	
1.1. Determine elements of quality feedback and consider the criteria needed for feedback to be quality?	Using the rubric and definition of each element of the T-E-A-C-H model (CN): 1. Verbally list (B) quality feedback from "unsatisfactory" and "basic" to "proficient" or "distinguished" (CR). 2. Identify, with accuracy, each element (B) that is	Criterion-referenced tests: Pre-test Bloom's Level of Knowledge: Evaluate Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Knowledge Assessment Procedure: The rubric will be presented to each learner at the start of the workshop to get them familiar with the T-E-A-C-H Model. The learner will determine the criteria needed for feedback to be quality. The learner	

	low quality feedback (CR). 3. Select one or more of the five elements of the T-E-A-C-H model (B) that is non-quality and rewrite the element to be quality (CR).	should agree with the rubric, its criteria, and its levels in order to have a consensus on the definition and the level of mastery of skills on the rubric. How to Understand Mastery: A binary question is asked to agree on the elements of the rubric provided. If the learner disagrees, the learner can provide additional feedback to ensure that the rubrics is considered 100% quality feedback. This will demonstrate a consensus on using the rubric before starting the practice tests during the workshop.
1.1.1 <i>List</i> the criteria critical to determine if feedback is timely, explicit, appropriate, considerate, and helpful.	Within the workshop setting (CN), verbally list the five elements of the T-E-A-C-H model (B) to determine if the feedback is timely, explicit, appropriate, considerate, and helpful (CR).	Criterion-referenced tests: Pre-test Bloom's Level of Knowledge: Analyze Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Skills and Behavior Assessment Procedure: The learner will have access to the rubrics and should be able to list the five elements of the T-E-A-C-H model. How to Understand Mastery: When the learner is asked to list the five elements of the T-E-A-C-H Model, the learner should correctly identify the five elements of the T-E-A-C-H model.
1.1.2 Analyze feedback from a sample to determine if the feedback has the required element of T-E-A-C-H	From a sample provided during the workshop, and using the T-E-A-C-H model rubric (CN): 1. Identify if one or more of the five elements of the T-E-A-C-H model (B) is considered to be quality or non-quality feedback (CR). 2. Determine if the feedback has the "distinguished" level for all five elements	Criterion-referenced tests: Practice tests Bloom's Level of Knowledge: Analyze Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Skills and Behavior Assessment Procedure: Three samples will be presented and the learner should determine if the feedback is quality or non-quality. How to Understand Mastery: When the questions are presented, the learner should analyze the samples using critical thinking skills to make a decision about why the feedback is

	of the rubrics (B) to be considered quality feedback (CR) .	considered quality feedback or non-quality feedback. Three short samples will be presented to get started and to not overload the learner as they begin applying the model. The learner should identify the sample that is most appropriate regarding the five elements from the rubrics.
1.1.3 <i>Define</i> feedback as quality feedback.	Using the T-E-A-C-H model rubric (CN), determine feedback on a sample student assessment as quality feedback (B). The learner should correctly identify at least 85 percent of quality feedback (CR).	Criterion-referenced tests: Post-test Bloom's Level of Knowledge: Remember Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Knowledge Assessment Procedure: Three sample student assessments will be presented towards the end of the workshop by the workshop facilitators. How to Understand Mastery: The learner should identify if the feedback on the assessments are quality feedback or non-quality feedback. The learner should then be able to define why the feedback is quality or non-quality. The workshop facilitators will review and go over the answers in a group setting so the learner can self-assess their responses.
1.1.4 <i>Define</i> feedback as non-quality feedback.	Using the T-E-A-C-H model rubric (CN), determine feedback on a sample student assessment as non-quality feedback (B). The learner should correctly identify at least 85 percent of non-quality feedback (CR).	Criterion-referenced tests: Post-test Bloom's Level of Knowledge: Remember Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Knowledge Assessment Procedure: Three sample student assessments will be presented towards the end of the workshop by the workshop facilitators. How to Understand Mastery: The learner should identify if the feedback on the assessments are quality feedback or non-quality feedback. The learner should then be able to define why the feedback is quality or non-quality. The workshop facilitators will review and go over the answers in a group setting so the learner can self-assess their responses.

3 Apply quality feedback to student assessments using the elements from T-E-A-C-H.	Review a sample student assessment (CN) and provide feedback to the sample student assessment using the T-E-A-C-H model (B). The learner should provide feedback that meets the T-E-A-C-H criteria at least an 85 percent level (CR).	Bloom's Level of Knowledge: Apply Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Skills and behavior Assessment Procedure: Two sample student assessments will be provided to each learner towards the end of the workshop by the workshop facilitators. How to Understand Mastery: The learner should review the student assessment and apply quality feedback to both sample assessments using their acquired knowledge. The feedback they provide on the assessment should be timely, explicit, appropriate, constructive, and helpful. In a group setting, the learner will share their feedback and discuss. The learners will provide each other with comments on the feedback they applied to the sample assessments.
3.1 Choose to provide feedback using the elements from T-E-A-C-H.	Using feedback from peer discussions (CN), choose to explain the criteria of the T-E-A-C-H model (B) and use the model to provide quality feedback (CR).	Criterion-referenced tests: Post-observation Bloom's Level of Knowledge: Remember Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Attitudinal Assessment Procedure: The measurement of this goal will be observed when the learner decides to provide quality feedback to their students in a classroom setting. How to Understand Mastery: The mastery of this attitudinal goal will be measured when the learner chooses to provide quality feedback. The feedback will include timely, explicit, appropriate, constructive, and helpful comments on their students' assessments. This goal should be ongoing and will not be a one time occurrence. Mastery of this goal will be when all future feedback is quality.

3.2 Choose to provide constructive feedback using sensitive language.	Using the 'C' in T-E-A-C-H (CN), choose to provide feedback that is considerate (B). The feedback should be constructive, using language that is sensitive, unbiased and diverse (CR).	Criterion-referenced tests: Practice test Bloom's Level of Knowledge: Remember Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Skills and behavior Assessment Procedure: A video will be presented with the learner during the instruction of "C", and then the learner will be asked to give constructive feedback using sensitive language. How to Understand Mastery: The learner should choose to use sensitive language and be unbiased. This assessment considers the learning outcomes and emphasizes competencies that include application and creation of knowledge, along with the development of important skills and dispositions.
3.3 Demonstrate mastery of rubrics and grading student assessments.	When asked either orally or in writing (CN), to indicate their knowledge of grading and the use of rubrics (B) the learner should explain the rubric criteria and grading of students assessments (CR).	Criterion-referenced tests: Pre-test Bloom's Level of Knowledge: Apply Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Skills Assessment Procedure: Before the instruction begins, the learner will be presented with 3 student assessment samples and rubrics. Based on their response, the instructor will decide the time and efforts spent on grading. How to Understand Mastery: The learner should be able to grade correctly on the samples and provide a rationale of their decision. The learner should demonstrate where the students should get full points and where students should lose points based on the rubric.
3.4 Identify elements of feedback that are appropriate to the learner, the level of the course, and the	Using the 'A' in T-E-A-C-H (CN), provide feedback that is appropriate to the context of the student (B). The feedback should be personal and relevant to the student and the course (CR).	Criterion-referenced tests: Practice test Bloom's Level of Knowledge: Understand Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Skills and behavior

content of the course.		Assessment Procedure: Three samples will be presented to the learner during the instruction of "A". How to Understand Mastery: Three samples of feedback will be presented and the learner will identify if the feedback is appropriate to the students, to the level of the course, and to the content of the course.
3.5 Determine areas of improvement and offer solutions that improve student performance.	Using the 'H' in T-E-A-C-H (CN), provide feedback that is helpful to the development of the student in their future assessments (B). The feedback should identify areas for improvement and offer solutions that will improve their future performance. Feedback should point out areas for improvement, but also include strengths of the learner's work (CR).	Criterion-referenced tests: Post-test Bloom's Level of Knowledge: Evaluate Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Knowledge Assessment Procedure: A feedback sample that is lacking advice for future improvement will be provided to the learner after the instruction. The learner will need to identify what is missed and point out areas for improvement in a post-test. How to Understand Mastery: The learner will need to understand that the feedback should provide specific actions for future assignments. They will be able to determine areas for improvement and offer solutions that will improve students' future performance. Feedback should point out areas for improvement, but also include strengths of the student's work.
3.6 Demonstrate familiarity with providing quality student assessment instruction.	When asked either orally or in writing (CN) , to indicate how to provide quality student assessment instruction (B) ,the learner should explain the criteria of quality instruction for assessments (CR) .	Criterion-referenced tests: Pre-test and seminar discussion Bloom's Level of Knowledge: Apply Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Knowledge Assessment Procedure: The learner will need to demonstrate what quality feedback is to ensure that clear direction is given to promote high quality assessment submissions. The learner will identify what they do in their own instruction that aligns with the T-E-A-C-H Model.

		How to Understand Mastery: The learner will demonstrate if their idea of quality instruction aligns with the examples given in the seminar. They will be able to demonstrate if what they practice is sufficient and promotes success within the T-E-A-C-H Model.
3.7 Provide feedback to student assessments that is explicit and aims to help the student progress.	Using the 'E' in T-E-A-C-H (CN), provide feedback that is explicit (B) in order to guide students in their development of future assessments. Feedback should provide some room for interpretation, but should be clear in what was done well and what could be improved upon (CR).	Criterion-referenced tests: Post-test Bloom's Level of Knowledge: Create Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Knowledge Assessment Procedure: A feedback sample that is lacking explicit, clear, and constructive comments will be provided to the learner after the instruction. The learner will be asked to identify what is missed and point out areas for improvement in a post-test. How to Understand Mastery: The learner will need to understand that the feedback they provide should include explicit comments that promote higher quality submission for future assignments. They will be able to identify areas for improvement and provide feedback that promotes critical thinking for the student. The earner will be able to identify feedback that expresses what could be improved upon and what was done well.
3.8 Demonstrate knowledge of classroom schedules and content scaffolding.	When asked either orally or in writing (CN), to describe classroom schedules and content scaffolding (B), the learner should explain their individual classroom schedule and content scaffolding approach (CR).	Criterion-referenced tests: Pre-test and seminar discussion Bloom's Level of Knowledge: Apply Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Knowledge Assessment Procedure: The learner will describe how classroom schedules impact content scaffolding and how they are aligned with T-E-A-C-H core elements. The learner will identify what they do with their own classroom schedule and content scaffolding.

		How to Understand Mastery: The learner will demonstrate if their idea of classroom schedules and content scaffolding aligns with examples given in the seminar. They will be able to identify if what they practice is sufficient and promotes success within the T-E-A-C-H model.
3.9 Determine the time frame to give quality feedback with consideration to classroom schedules.	Using the 'T' in T-E-A-C-H (CN), identify feedback that is timely (B). By determining what is timely (B), the learner will better prepare their students for scaffolding assignments and skill building (CR).	Criterion-referenced tests: Post-test Bloom's Level of Knowledge: Evaluate Type of learning outcome (knowledge, skills and behavior, and/or attitudes): Knowledge Assessment Procedure: A feedback sample that outlines a timeline on untimely and timely feedback per the T-E-A-C-H model will be presented to the learner. The learner will need to identify what is incorrect and point out areas for improvement in a post-test. How to Understand Mastery: The learner will need to understand that the feedback they provide should be delivered to their students in a timely fashion. They will be able to determine what is considered timely and late feedback. The learner will be able to decide what an appropriate feedback timeline is based on the T-E-A-C-H Model.

Designing Instructional Strategies

Names of members:

Carine Marette, Conghui Liu, Pate Thomerson, and Keirsten Eberts

Instructional Goal Steps

Cluster 1:

Analyze the elements of quality feedback including timeliness, explicitly, appropriateness, consideration, and helpfulness.

Cluster 3:

Apply quality feedback to a student assessment using the elements from T-E-A-C-H.

Pre-Instructional Activities

Motivation:

The learner will be motivated by the idea of providing quality feedback to further enhance student learning. The learner will want to increase their knowledge on the T-E-A-C-H model.

Objectives:

The purpose of this workshop is to prepare K-12 teachers to develop the skills needed to give quality feedback to their students. The overall goal of the instruction is to train teachers on how to create feedback using T-E-A-C-H principles. Teachers will also evaluate the impact feedback has on future student performance. Teachers will demonstrate the skills acquired throughout this workshop in small breakout groups.

Entry Skills:

The learner will be asked general questions on their knowledge of giving feedback. These questions will be asked at the beginning of the workshop. The rubric called, "T-E-A-C-H Model Rubric," will be provided to the learner. If the learner does not have experience with other feedback models, a list of models will be provided such as concepts and research from Quality Matters, TAG (Tell, ask, give), SMART, STAR, RISE, SBI (Situation, behaviour, and impact) feedback tools, and other strategies and frameworks.

Student Grouping and Media Selections:

Individualized, small-group discussion, large-group discussion, in-person, and pre-test, practice tests, post-test, surveys, assessments, and feedback.

Assessment

Pre-tests:

Pre-test will be administered at the beginning of each session. They will be informal and used in conjunction with the post-test to prove that knowledge was gained by the learner about the seminar information. This is a pre instructional learning tool that will also indirectly help the learners focus on the main points of the seminar.

Practice tests:

Practice tests will be administered to learners throughout the workshop to ensure mastery of skills before moving to new topics. These practice tests will be informal, but will provide the workshop facilitators and school supervisors with beneficial assessment data on where each learner's skills are in providing quality feedback to students. The practice test will include a variety of assessments including multiple choice, true/false, open-ended questions, and group discussions.

Post-tests:

Post-test will be administered to the learners at the end of the workshop to check the mastery of using the T-E-A-C-H model for quality feedback. The test will be in the form of three scenarios in which learners will be required to provide quality feedback.

Student Grouping and Media Selections:

Individualized, small-group discussion, large-group discussion, in-person, and pre-test, practice tests, post-test, surveys, assessments, and feedback.

Cluster 1: Analyze the elements of quality feedback including timeliness, explicitly, appropriateness, consideration, and helpfulness.

Student Grouping and Media Selections:

All objectives 1.1 through 1.1.4 are individualized, small-group discussion, large-group discussion, in-person, and pre-test, practice tests, post-test, surveys, assessments, and feedback.

1.1. Determine elements of quality feedback and consider the criteria needed for feedback to be quality?

Content Presentation

Content

The rubric will be presented to each learner at the start of the workshop to get them familiar with the T-E-A-C-H Model. The learner will determine the criteria needed for feedback to be quality. The learner should agree with the rubric, its criteria, and its levels in order to have a consensus on the definition and the level of mastery of skills on the rubric.

Examples:

- 1. Review the T-E-A-C-H Model.
- 2. Answer a binary question agreeing to the elements of the rubric provided.

- 3. Provide feedback on the rubric if not in agreement.
- 4. Use open-minded thinking during this workshop.
- 5. Actively participate in discussion throughout the workshop.

Learner Participation

Practice Items and Activities:

A binary question is asked to agree on the elements of the rubric provided. If the learner disagrees, the learner can provide additional feedback to ensure that the rubrics is considered 100% quality feedback. This will demonstrate a consensus on using the rubric before starting the practice tests during the workshop.

Feedback:

Restate answer to binary question and provide additional feedback (if necessary) on the T-E-A-C-H Model.

1.1.1 List the criteria critical to determine if feedback is timely, explicit, appropriate, considerate, and helpful.

Content Presentation

Content:

The learner will have access to the rubrics and should be able to list the five elements of the T-E-A-C-H model.

Examples:

- 1. Review the T-E-A-C-H Model.
- 2. Read each criteria and comprehend the meaning of each level in the rubrics.
- 3. Actively participate in listing all five elements of the T-E-A-C-H model.

Learner Participation

Practice Items and Activities:

When the learner is asked to list the five elements of the T-E-A-C-H Model, the learner should correctly identify the five elements of the T-E-A-C-H model.

Feedback:

Restate all five elements of the T-E-A-C-H Model, which are "Timely, explicit, appropriate, considerate, and helpful."

1.1.2 Analyze feedback from a sample to determine if the feedback has the required element of T-E-A-C-H.

Content Presentation

Content:

Three samples will be presented and the learner should determine if the feedback is quality or

non-quality.

Examples:

- 1. Read three generic samples of feedback to evaluate if the feedback is quality feedback or not.
- 2. Review the T-E-A-C-H Model.
- 3. Analyze the samples of feedback using the T-E-A-C-H Model Rubric.
- 4. Identify the feedback sample that is quality by referencing the five elements from the rubric.
- 5. Select the best answer to demonstrate knowledge on why the feedback was or was not quality feedback.

Learner Participation

Practice Items and Activities:

When the questions are presented, the learner should analyze the samples using critical thinking skills to make a decision about why the feedback is considered quality feedback or non-quality feedback. Three short samples will be presented to get started and to not overload the learner as they begin applying the model. The learner should identify the sample that is most appropriate regarding the five elements from the rubrics.

Feedback:

Select the most appropriate sample feedback that is most representative of quality feedback using the T-E-A-C-H Model Rubric.

1.1.3 Define feedback as quality feedback.

Content Presentation

Content:

Three sample student assessments will be presented towards the end of the workshop by the workshop facilitators.

Examples:

- 1. Introduce three sample student assessments.
- 2. Read three sample student assessments.
- 3. Review the T-E-A-C-H Model.
- 4. Analyze the sample feedback on the assessments.
- 5. Identify if the feedback is quality or non-quality.
- 6. Rewrite the sample of non-quality feedback to be quality feedback.
- 7. Prepare for discussions on whether the feedback is quality or non-quality.

Learner Participation

Practice Items and Activities:

The learner should identify if the feedback on the assessments are quality feedback or non-quality feedback. The learner should then be able to define why the feedback is quality or non-quality. The workshop facilitators will review and go over the answers in a group setting so the learner can self-assess their responses.

- 1. Identify if the feedback on the assessments are quality feedback or non-quality feedback.
- 2. Define why the feedback is quality or non-quality.
- 3. Rewrite the sample of non-quality feedback to be quality feedback.
- 4. Engage in open discussion on why the feedback is quality or non-quality.

Feedback:

Repeat why the feedback on the sample assessment was quality using the T-E-A-C-H Model Rubric. The responses will vary and must include all components to be timely, explicit, appropriate, considerate, and helpful.

1.1.4 Define feedback as non-quality feedback.

Content Presentation

Content:

Three sample student assessments will be presented towards the end of the workshop by the workshop facilitators.

Examples:

- 1. Read three sample student assessments.
- 2. Review the T-E-A-C-H Model.
- 3. Analyze the sample feedback on the assessments.
- 4. Identify if the feedback is quality or non-quality.
- 5. Prepare for discussions on whether the feedback is quality or non-quality.

Learner Participation

Practice Items and Activities:

- 1. Identify if the feedback on the assessments are quality feedback or non-quality feedback.
- 2. Define why the feedback is quality or non-quality.
- 3. Engage in open discussion on why the feedback is quality or non-quality.

Feedback:

Repeat why the feedback on the sample assessment was non-quality using the T-E-A-C-H Model Rubric.

Cluster 3: Apply quality feedback to student assessments using the elements from T-E-A-C-H.

Student Grouping and Media Selections:

All objectives 3.1 through 3.9 are individualized, small-group discussion, large-group discussion, in-person, and pre-test, practice tests, post-test, surveys, assessments, and feedback.

3.1 Choose to provide feedback using the elements from T-E-A-C-H.

Content Presentation

Content:

Two sample student assessments will be provided to each learner towards the end of the workshop by the workshop facilitators. The measurement of this goal will be observed when the learner decides to provide quality feedback to their students in a classroom setting.

Examples:

- 1. Read two sample student assessments.
- 2. Review the T-E-A-C-H Model.
- 3. Provide quality feedback.
- 4. In the future, choose to provide students with quality feedback.

Learner Participation

Practice Items and Activities:

- 1. Provide quality feedback to two sample student assessments.
- 2. Explain why the feedback is quality in small-group discussions.
- 3. Identify each element of the T-E-A-C-H Model and how it is met in the feedback.
- 4. Choose to provide quality feedback.
- 5. Feedback will include timely, explicit, appropriate, constructive, and helpful comments on students' assessments.
- 6. Continue providing quality feedback.

Feedback:

Repeat what makes the feedback created quality using the T-E-A-C-H Model Rubric.

3.2 Choose to provide constructive feedback using sensitive language.

Content Presentation

Content:

A video will be presented with the learner during the instruction of "C", and then the learner will be asked to give constructive feedback using sensitive language.

Examples:

- 1. Play the video.
- 2. Review the T-E-A-C-H model.
- 3. Identify the constructive aspect of feedback in the video.
- 4. Indicate the sensitive language used in the video.

Learner Participation

Practice Items and Activities:

- 1. Choose to use sensitive language and be unbiased.
- 2. Consider the learning outcomes and emphasize competencies that include application and creation of knowledge, along with the development of important skills and

dispositions.

Feedback:

Repeat what is constructive feedback and how to provide constructive feedback.

3.3 Demonstrate mastery of rubrics and grading student assessments.

Content Presentation

Content:

Before the instruction begins, the learner will be presented with 3 student assessment samples and rubrics. Based on their response, the instructor will decide the time and effort spent on grading.

Examples:

- 1. Read three sample student assessments and rubrics.
- 2. Review the T-E-A-C-H Model and the use of rubrics.
- 3. Grade and provide quality feedback.

Learner Participation

Practice Items and Activities:

- 1. Grade correctly on the samples and provide a rationale of decision.
- 2. Demonstrate where the students should get full points and where students should lose points based on the rubric.

Feedback:

Repeat the rubrics of grading and how to provide quality feedback based on the rubric.

3.4 Identify elements of feedback that are appropriate to the learner, the level of the course, and the content of the course.

Content Presentation

Content:

Three samples will be presented to the learner during the instruction of "A".

Examples:

- 1. Read three sample student assessments.
- 2. Review the T-E-A-C-H Model.
- 3. Analyze the sample feedback on the assessments.
- 4. Identify if the feedback is appropriate or not.
- 5. Prepare for discussions on whether the feedback is quality or non-quality.

Learner Participation

Practice Items and Activities:

- 1. State what is appropriate when providing feedback.
- 2. Identify if the feedback is appropriate to the students, to the level of the course, and to the content of the course.

Feedback:

Repeat what is appropriate for feedback and why appropriate is important.

3.5 Determine areas of improvement and offer solutions that improve student performance.

Content Presentation

Content:

A feedback sample that is lacking advice for future improvement will be provided to the learner after the instruction. The learner will need to identify what is missed and point out areas for improvement in a post-test.

Examples:

- 1. Read the feedback sample provided to students.
- 2. Analyze the sample feedback.
- 3. Identify what is missing in the sample.
- 4. Provide advice for improving the feedback.

Learner Participation

Practice Items and Activities:

- Recognize that feedback should provide specific actions for future assignments.
- 2. Determine areas for improvement and offer solutions that will improve students' future performance.
- 3. Feedback should point out areas for improvement, but also include strengths of the student's work.

Feedback:

Repeat what could be added to the feedback for future improvement.

3.6 Demonstrate familiarity with providing quality student assessment instruction.

Content Presentation

Content:

The learner will need to demonstrate what quality feedback is to ensure that clear direction is given to promote high quality assessment submissions. The learner will identify what they do in their own instruction that aligns with the T-E-A-C-H Model.

Examples:

- 1. Read three sample student assessment instruction examples.
- 2. Analyze the sample feedback.
- 3. Identify what quality assessment instruction is.

Learner Participation

Practice Items and Activities:

- 4. Identify if the instruction is high quality or low quality.
- 5. Engage in discussions on why each example is or is not defined as high or low quality.

Feedback:

Repeat why the feedback on the sample assessment was correct or incorrect using the T-E-A-C-H Model Rubric.

3.7 Provide feedback to student assessments that is explicit and aims to help the student progress.

Content Presentation

Content

A feedback sample that is lacking explicit, clear, and constructive comments will be provided to the learner after the instruction. The learner will be asked to identify what is missed and point out areas for improvement in a post-test.

Examples:

- 1. Read a feedback sample that is lacking explicit, clear, and constructive comments.
- 2. Review the T-E-A-C-H model.
- 3. Provide explicit feedback.
- 4. In the future, choose to provide students with explicit feedback.

Learner Participation

Practice Items and Activities:

- 1. Provide explicit feedback to two sample student assessments.
- 2. Explain why the feedback is explicit in small-group discussions.
- 3. Identify the explicit element of the T-E-A-C-H Model and how it is met in the feedback.
- 4. Choose to provide explicit feedback.
- 5. Continue providing explicit feedback.

Feedback:

The learner will need to recognize that the feedback they provide should include explicit comments that promote higher quality submission for future assignments. They will be able to identify areas for improvement and provide feedback that promotes critical thinking for the student. The learner will be able to identify feedback that expresses what could be improved upon and what was done well.

3.8 Demonstrate knowledge of classroom schedules and content scaffolding.

Content Presentation

Content:

The learner will describe how classroom schedules impact content scaffolding and how they are aligned with T-E-A-C-H core elements. The learner will identify what they do with their own classroom schedule and content scaffolding.

Examples:

- 1. Describe classroom schedules and content scaffolding.
- 2. Explain individual classroom schedule and content scaffolding approaches.

Learner Participation

Practice Items and Activities:

- 1. Identify if their own classrooms use content scaffolding and schedules.
- 2. Prepare for discussion on if they are using content scaffolding and schedules.
- 3. Discuss if they are using content scaffolding and schedules in a way that promotes higher quality learning.

Feedback:

The learner will demonstrate if their idea of classroom schedules and content scaffolding aligns with examples given in the seminar. They will be able to identify if what they practice is sufficient and promotes success within the T-E-A-C-H model.

3.9 Determine the time frame to give quality feedback with consideration to classroom schedules.

Content Presentation

Content:

A feedback sample that outlines a timeline on untimely and timely feedback per the T-E-A-C-H model will be presented to the learner. The learner will need to identify what is incorrect and point out areas for improvement in a post-test.

Examples:

- 1. Read a feedback sample that is lacking a timely response.
- 2. Review the T-E-A-C-H model.
- 3. Define timely feedback.
- 4. In the future, choose to provide students with timely feedback.

Learner Participation

Practice Items and Activities:

- 1. Provide timely feedback to two sample student assessments.
- 2. Explain why the feedback is timely in small-group discussions.
- 3. Identify the timely element of the T-E-A-C-H Model and how it is met in the feedback.
- 4. Choose to provide timely feedback.

5. Continue providing timely feedback.

Feedback:

The learner will need to recognize that the feedback they provide should be delivered to their students in a timely fashion. They will be able to determine what is considered timely and late feedback. The learner will be able to decide what an appropriate feedback timeline is based on the T-E-A-C-H Model.