



Trades Summit Series



WELCOME




WHY BACKWARDS IS BEST

- TODAY'S AGENDA
- WELCOME
- KEYNOTE: CURRICULUM DESIGN – WHY BACKWARDS IS BEST
- Q&A
- 1.30pm- 2.00pm BREAK
- 2pm – 3.30pm INTERACTIVE WORKSHOP on CURRICULUM DESIGN

FROM INDUSTRY TO INSTRUCTION



STANDARDIZED PROGRAM OUTLINES



IF IT AIN'T BROKE, BREAK IT!

A REFLECTION ON THE TIME
I OPENED UP MY LESSON
PLANS AND HIT DELETE.

THE TRADITIONAL CLASSROOM



TEACHING & LEARNING IS
SYNCHRONOUS

STRUCTURED TIMETABLE FOR T&L

- ASSIGNED READINGS
- CLASSROOM REVIEW
- POWER-POINT SLIDES / LECTURE
- QUIZZES – WORKSHEETS –
MULTIPLE CHOICE EXAMS
- INSTRUCTOR LED
DEMONSTRATIONS
- STUDENT PASSIVE RECIPIENT IN THE
ACQUISITION OF KNOWLEDGE

Assumes learning is dependent on the instructor's presence

DIGITAL CLASSROOM: DIGITAL PEDAGOGY

Teaching & Learning is
Asynchronous

Students set own timetable and
take responsibility for their
learning

Instructor Designs Curriculum:



Assumes Learners are capable agents in the acquisition of knowledge
Learning takes place without the physical presence of an instructor

ONLINE LEARNING DOESN'T HAPPEN BY CHANCE

- Develop knowledge, skills and attitudes concerning online facilitation
- Develop knowledge and skills in designing online pedagogies
- Develop technical skills using an LMS to facilitate online learning



CURRICULUM IS AN
INTENTIONAL LEARNING
JOURNEY...

DESIGNED WITH THE LEARNER
IN MIND

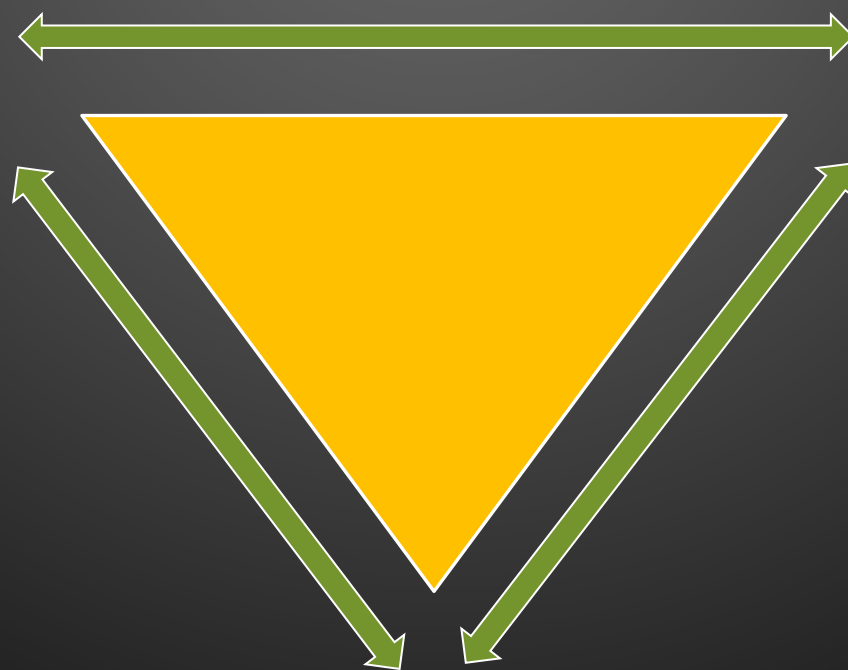


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FROM TVET INSTRUCTOR TO CURRICULUM DESIGNER

DESIGNING CURRICULUM: BACKWARD DESIGN

1. Make Explicit
your **Learning
Outcomes:**
Targeted changes
you want to see in
your students



2. Design
Assessments to
align directly with
these Learning
Outcomes

3. **Instructional Activities:** Design your Teaching
and Learning activities strategically so that students
meet your intended Learning Outcomes





Occupational Analysis Chart

BAKER

Occupation Description: "Baker" means a person who is responsible for the preparation and production of a wide variety of baked foods, and may include those who work as both Bakers and Pastry Cooks/Chefs (Pâtisseries). Bakers prepare bread, rolls, muffins, pies, pastries, cakes and cookies in retail and wholesale bakeries and dining establishments. Pastry Cooks/Chefs prepare pastries, cakes, cookies, chocolate, desserts, and confectionery in pastry shops, hotels, and restaurants.

OCCUPATIONAL SKILLS A	Demonstrate workplace safety procedures A1	Apply safe food handling practices A2	Apply interpersonal skills A3	Use and maintain baking tools and equipment A4	Use product and nutritional information A5	Apply baking science and trade calculations A6
	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
	Plan and organize production A7	Manage bakery products and inventory A8	Apply cost control procedures A9	Apply packaging and merchandizing procedures A10		
	1 2 3	1 2 3	1 2 3	1 2 3		
FERMENTED GOODS B	Prepare basic doughs and products B1	Prepare laminated doughs and products B2	Prepare specialty doughs and products B3	Prepare natural ferments and Artisan breads B4		
	1 2	1 2	1 2 3	2 3		
PASTRIES C	Prepare pies and tarts C1	Prepare laminated pastry doughs and products C2	Prepare specialty pastries C3	Prepare deep fried pastries and products C4		
	1 2	1 2	1 2 3	2		

Line (GAC):**B FERMENTED GOODS****Competency:****B1 Prepare basic doughs and products****Objectives**

To be competent in this area, the individual must be able to:

- Describe basic doughs and products.
- Describe the principles of preparing basic doughs.
- Scale and mix basic doughs.
- Perform make-up of basic doughs and products.
- Finish and bake basic dough products.
- Cool, slice and package basic dough products.

LEARNING TASKS

1. Describe basic doughs and products

CONTENT

- Straight doughs
 - White bread dough
 - Whole wheat bread dough
 - Basic sweet dough
 - Lean straight dough

Three Parts of a Learning Outcome

1. **Action Word** (Performance Verb)
2. **Context** (situated within practice)
3. **Criteria** (to what standard)

**Context: variety of
yeasted products**

Learning Outcome: **Evaluate** yeasted products utilizing the **twelve
steps of bread**

Performance: Evaluate

**Criteria: Twelve Steps of
bread**

Performance – Context – Criteria

OBJECTIVES VERSUS OUTCOME

ITA COMPETENCY: B1: PREPARE BASIC DOUGHS AND PRODUCTS

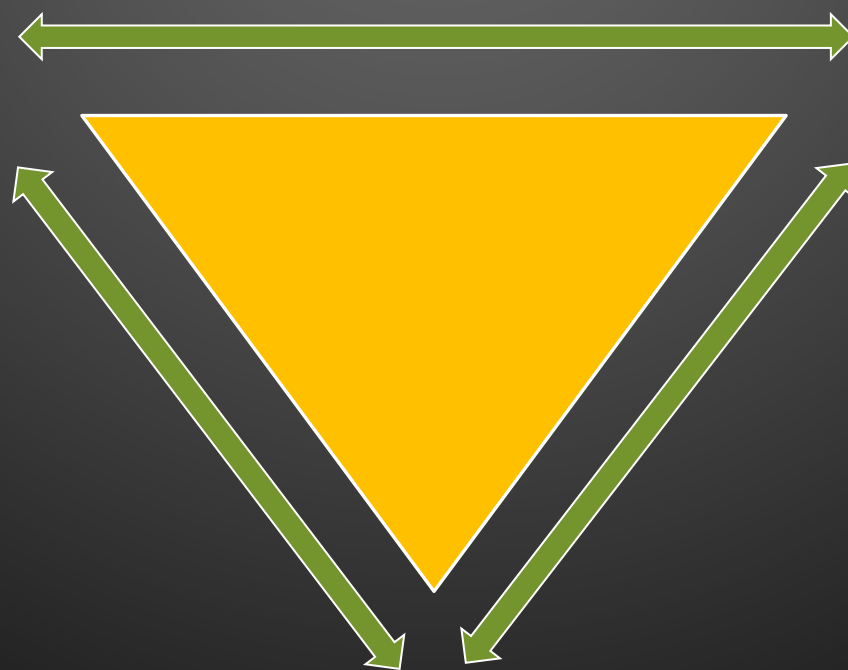
- Describe basic doughs and products
- Describe the principles of preparing basic doughs
- Scale and mix basic doughs
- Perform make-up of basic dough and products
- Finish and bake basic dough products
- Cool, slice and package basic dough products

LEARNING OUTCOME

- **EVALUATE YEASTED PRODUCTS**
UTILIZING THE TWELVE STEPS
OF BREAD

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REAL LIFE DOES NOT HAPPEN IN MULTIPLE-CHOICE QUESTIONS


- AUTHENTIC ASSESSMENTS RELATE TO REAL WORLD PROBLEMS
- REQUIRE HIGHER ORDER THINKING SKILLS
- REQUIRE STUDENTS TO EVALUATE SITUATIONS, PREDICT OUTCOMES AND SOLVE PROBLEMS
- APPLY LEARNED KNOWLEDGE AND SKILLS IN A REAL-LIFE SITUATION




AUTHENTIC ASSESSMENT



WHY USE AUTHENTIC ASSESSMENTS?



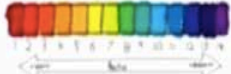

AUTHENTIC ASSESSMENTS ARE THE BEST WAY TO DETERMINE LIFE ACHIEVEMENT




ESSAYS AND CLASS TESTS DO NOT RELATE TO THE REAL WORLD

HOW TO INCORPORATE AUTHENTIC ASSESSMENTS


ART STUDENTS SHOULD BE ASSESSED BY THEIR ARTISTIC TALENTS




TRY YOUR BEST TO RELATE AUTHENTIC ASSESSMENTS TO REAL WORLD PROBLEMS



HIGHER ORDER THINKING SKILLS






THESE ASSESSMENTS MUST CHALLENGE YOUR STUDENTS TO CREATE AND SOLVE PROBLEMS



ALSO LET YOUR STUDENTS' IMAGINATION CREATE THESE ASSESSMENTS

APPLY LEARNED KNOWLEDGE




ALL STUDENTS MUST ONE DAY APPLY WHAT THEY LEARNED IN SCHOOL TO WORK SETTINGS

REAL LIFE DOES NOT OCCUR WITH MULTIPLE CHOICE QUESTIONS AND ESSAYS

RUBRICS

AUTHENTIC ASSESSMENTS ARE MOSTLY SUBJECTIVE

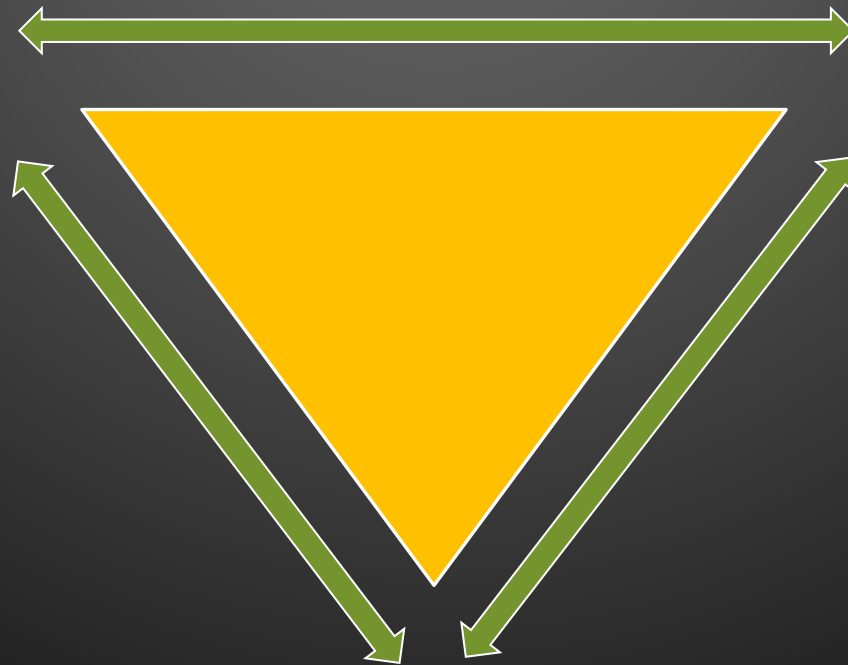
RUBRICS ARE NEEDED TO SET CRITERIA AND GOALS FOR YOUR STUDENTS



Learning Outcome 4	Summative Assessments	Tools to use
<p>By the end of this course, students will be able to:</p> <p>Evaluate yeasted products utilizing the twelve steps of bread.</p>	<p>Twelve Steps of Bread Assignment Adapt three pre-selected existing program bread formulas by inserting the twelve steps of bread at appropriate points in the production process.</p> <p>Mixing Assignment</p> <ul style="list-style-type: none"> Identify and describe five formulas that utilize different methods of mixing – straight dough, modified straight dough, short, improved, intensive mix. Discuss the characteristics of products each mixing method is likely to produce. Create an infographic illustrating how bread mixing has evolved over the past five hundred years. <p>Fermentation Assignment Written assignment that analyzes four pre-selected formulas using different times/temperatures during fermentation and the effect this has on the finished product with regard to flavour, aroma, and crumb.</p> <p>Final exam</p>	<p>What tools will you use to collect this evidence? (Quiz Tool, Assignment tool in D2L)</p> <p>D2L Assignment tool</p> <p>D2L Assignment tool</p> <p>D2L Assignment tool</p> <p>Zoom Oral exam</p>

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WHAT IS THE RELATIONSHIP BETWEEN COURSE CONTENT AND LEARNING OUTCOMES?

COURSE CONTENT

- TOOLS, MATERIAL, RESOURCES, TEXTBOOKS

- EXPLAIN, DESCRIBE, SUMMARIZE MEMORIZE, RECOGNIZE, KNOW THIS STUFF, UNDERSTAND THIS IDEA, ETC.

LEARNING OUTCOME

WHAT CAN STUDENTS NOW DO, BY THEMSELVES?

- PREDICT, RECOMMEND, INTERPRET, DIAGNOSE, EVALUATE, INVENT



1. Traditional pedagogies V digital pedagogies
2. TVET Instructors: Switching roles
3. I introduced Backward Design as a framework
4. Defined Learning Outcomes from Objectives

Curriculum Design: Backward Design Summary



QUESTIONS & ANSWERS



Trades Summit Series



WELCOME
BACK



Curriculum Development: Backward Design workshop

- 1: LET'S DEVELOP LEARNING OUTCOMES
- 2: BREAK-OUT ROOMS
- 3: SHARE
- 4: LET'S ALIGN AUTHENTIC ASSESSMENTS
- 5: BREAK-OUT ROOMS
- 6: SHARE
- 7: TELL ME: INSTRUCTIONAL STRATEGIES
- 8: Q&A



TEACHING ONLINE REQUIRES A SHIFT OF EMPHASIS FOR TEACHERS:

FROM:

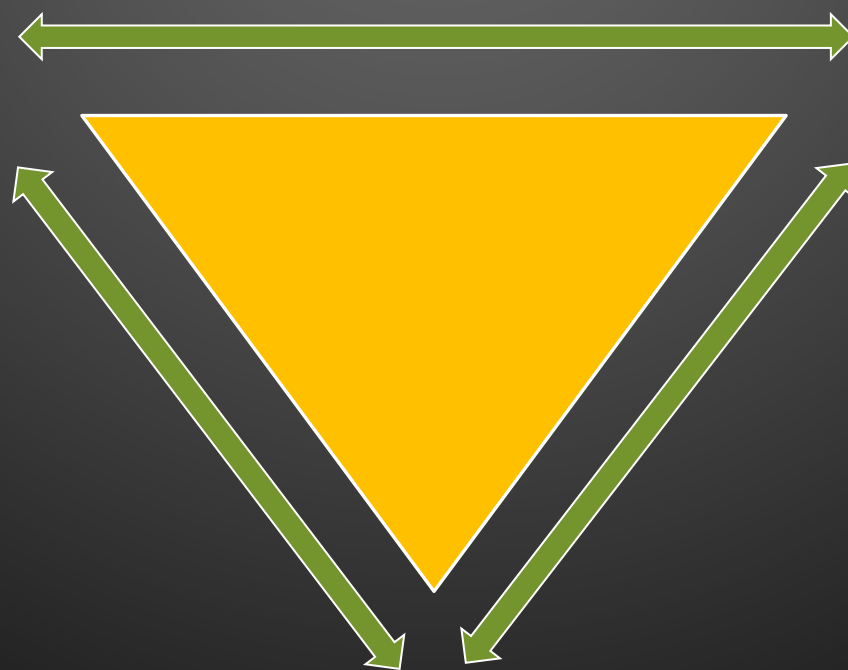
PRESENTER, RESPONDER (LIVE PRESENCE)

TO:

**DESIGNER OF ASSIGNMENTS AND PATHWAYS (INDIRECT
PRESENCE) SO STUDENTS FIND THEIR WAY WITHOUT YOUR
CONSTANT PARTICIPATION**

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KNOW WHERE
YOU ARE
LEADING YOUR
STUDENTS



Curriculum
development
starts here

CURRICULUM: MAPPING THE STUDENT JOURNEY

WHAT IS THE RELATIONSHIP BETWEEN COURSE CONTENT AND LEARNING OUTCOMES?

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- TOOLS, MATERIAL, RESOURCES, TEXTBOOKS

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LEARNING OUTCOME

- WHAT CAN STUDENTS NOW DO, BY THEMSELVES?

- PREDICT, RECOMMEND, INTERPRET, DIAGNOSE, EVALUATE, INVENT

THINK TIME!

You have a few minutes. Use these to share in the chat

**ONE MOST
IMPORTANT, LIFE-
ALTERING
DIFFERENCE**

you hope to induce in your students, as a result of their experience in your course.

Credit to: Bill Roberson

BREAKOUT ROOMS

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DEVELOP THREE
LEARNING
OUTCOMES
FOR A TVET
COURSE USING
THE PRINCIPLES
OF BACKWARD
DESIGN

BEWARE OF THESE VERBS IN YOUR LEARNING OUTCOMES

- UNDERSTAND
- KNOW
- RECOGNIZE
- FAMILIARIZE
- REMEMBER
- OBSERVE
- VALUE



Students completing this course will understand how fuel injection works.

vs.

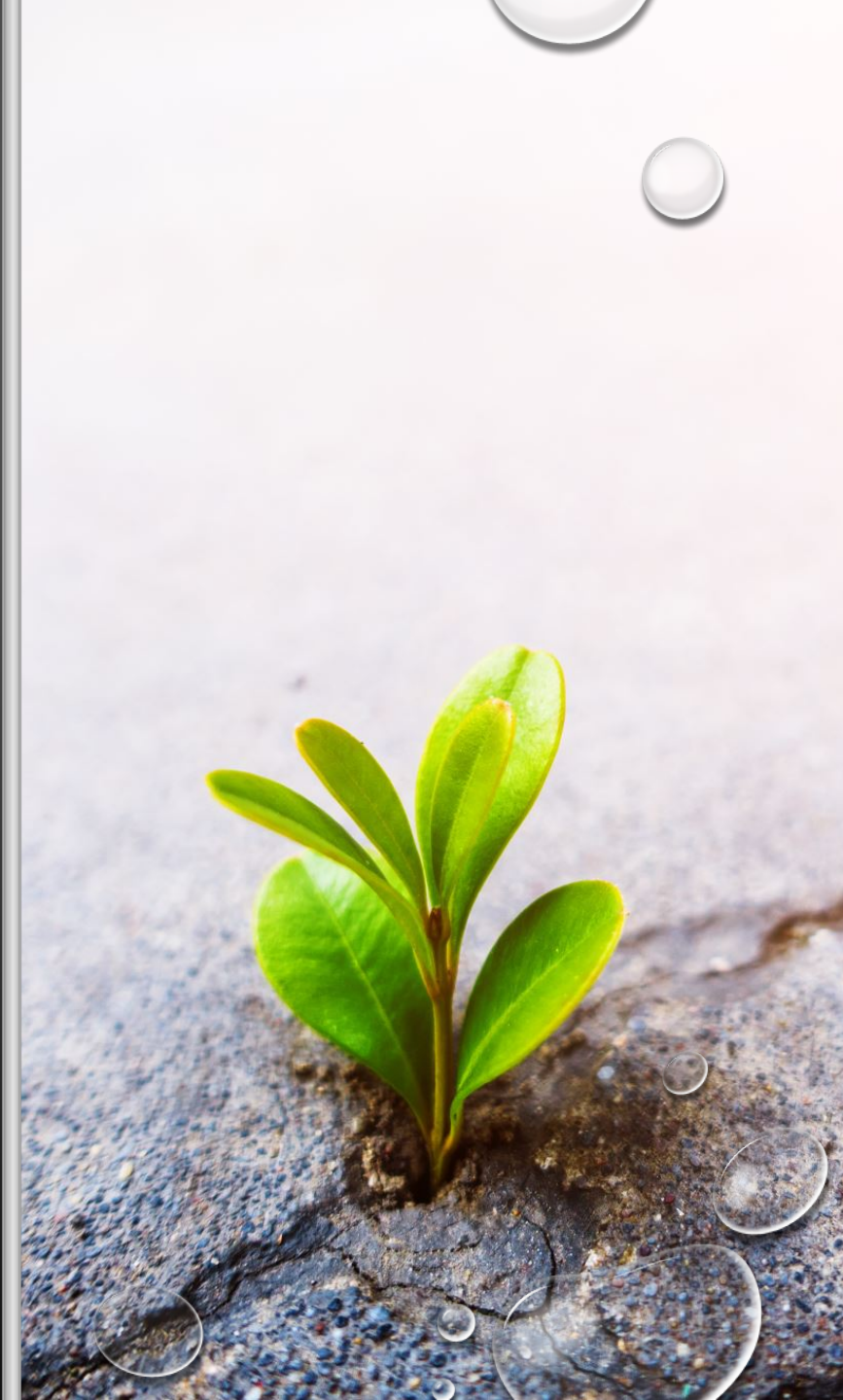
Students completing this course will be able to **diagnose** problems in **fuel injection systems** and **prescribe and/or perform** the necessary repairs **to industry standards**.



HIGH LEVEL VERBS = HIGH LEVEL LEARNING

HORTICULTURE

- STUDENTS COMPLETING THIS COURSE WILL BE ABLE TO **EVALUATE** THE BIOLOGICAL, CHEMICAL, AND PHYSICAL PROPERTIES OF SOIL AND SOILLESS GROWING MEDIA





REFRIGERATION MECHANICS AIR CONDITIONAING LEVEL 4

- STUDENTS COMPLETING THIS COURSE WILL BE ABLE TO **DIAGNOSE** GAS INSTALLATION DIFFICULTIES AND **DETERMINE** THE APPROPRIATE COURSE OF ACTION AS PER MANUFACTURES SPECIFICATIONS AND INDUSTRY STANDARDS



SHARE

BREAKOUT ROOMS

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IDENTIFY
AUTHENTIC
ASSESSMENTS
THAT **ALIGN** WITH
YOUR THREE
LEARNING
OUTCOMES
USING THE
PRINCIPLES OF
BACKWARD
DESIGN



SHARE

BREAKOUT ROOMS

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**ASSESS WHETHER
THIS INSTRUCTOR'S
INSTRUCTIONAL
STRATEGIES ALIGN
WITH THE
SUMMATIVE
ASSESSMENT, AND
THE INTENDED
LEARNING
OUTCOMES FOR
THIS COURSE**

Learning Outcome 4	Summative Assessments	Tools to use
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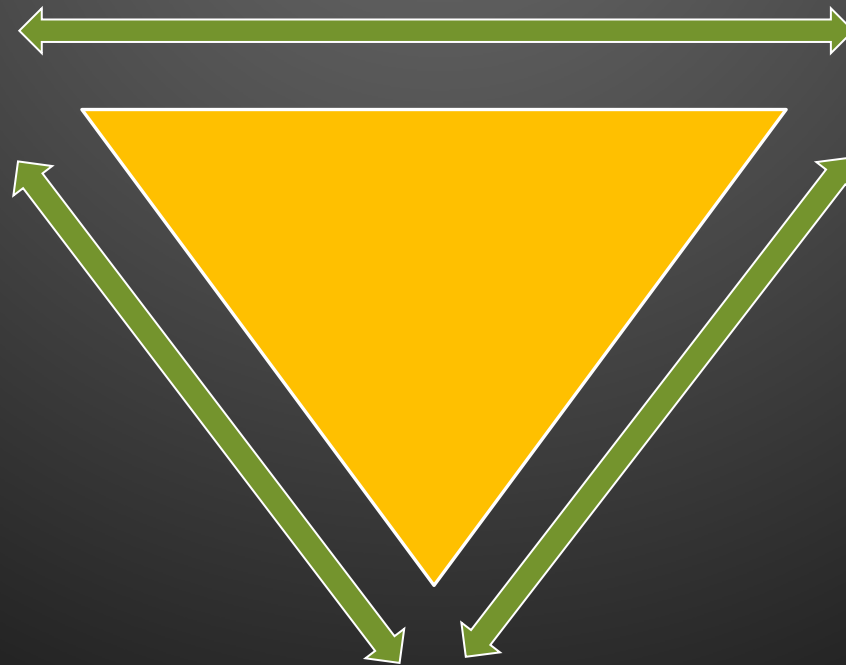


SHARE

TODAY'S SESSION WAS DESIGNED USING BACKWARD DESIGN

1. Learning

Outcome: The learner will be able to apply the Backwards Design framework to develop TVET curriculum



- **2. Assessments:** develop 3 Learning Outcomes using the ITA program outline
- Align Authentic Assessments with outcomes
- Perform analysis of an existing curriculum to Assess alignment

3. Instructional Activities: Presentation using pp slides to capture the big ideas. Q&A. Low stakes activity to develop Outcomes, and Assessment. Analyze existing curriculum. Added resources and contacts.



- THANK YOU FOR BEING PART OF TODAY SESSION
- YOU CAN REACH ME sally.vinden@viu.ca