

“STEP-1 going Pass-Fail: Seizing a Curricular Opportunity”

VTC Andrew P. Binks, Ph.D., Jennifer Cleveland, PharmD, BCPS, MBA, Renee J. LeClair, Ph.D.

Virginia Tech Carilion School of Medicine

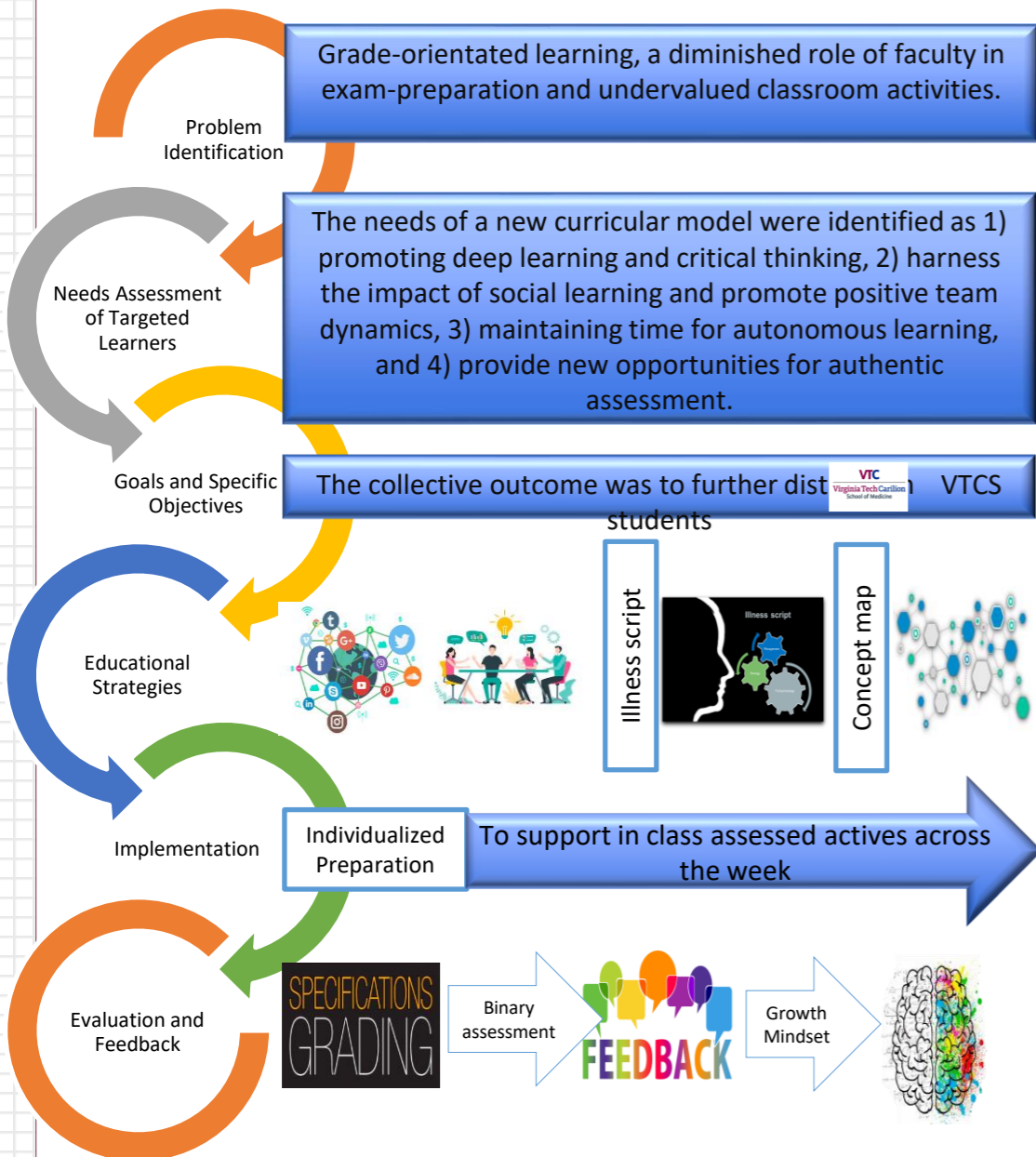
Virginia Tech Carilion School of Medicine

Example week: Second-year curriculum

Monday	Tuesday	Wednesday	Thursday	Friday
Preparation time	Illness Script	Preparation time	Concept Map	PBL Cases Pulmonary hypertension
PBL Cases	Preparation time	PBL Cases	Preparation time	

Background: The over-emphasis of STEP-1 score in residency selection had a detrimental impact on medical student well-being and learning behaviors. Use of external ‘high-yield’ resources left classrooms empty and students likely engaging in grade-focused, extrinsic learning. Despite this, students were effective independent learners and successful on STEP-1. The recent change in STEP-1 grading to pass-fail allows learners to adopt deeper-learning strategies, but also the need to distinguish themselves from other candidates in other ways. **We have designed and implemented a new second year curriculum to support the transition of novice learners to expert thinkers, with the aim to make them more successful in clerkships, score better in STEP-2 and remain competitive residency candidates.**

Process of Curriculum Development



What is an illness script?

An Illness script is used to organize case information including:

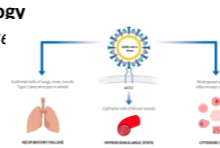
Epidemiology
Prevalence
Mortality
Risk factors



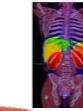
Signs and symptoms
As related to the presentation



Pathophysiology
Underlying disease



Diagnostics and Treatment
Laboratory values
Imaging
Pharmacological
Non-pharmacological
Social
Behavioral



What is a concept map?

A concept map is a visual representation of connections between a clinical presentation and the learners understanding of the etiology.

Mapping Elements

Concept mapping prompt

- The prompt directs construction of the.
- The concept map prompt is similar to an objective and provides a task in which the concepts should address.
- The prompt can be adjusted to change the focus of the map.

Domains of knowledge

- Domains will include relevant concepts chosen by the faculty.
- Concepts provided are basic information needed to begin to answer the mapping prompt.
- For this exercise the domains of knowledge are basic science and clinical practice.
- As with the prompt, modification to concepts can drastically change the focus of the activity.

Cross-links

- These are arrows between concepts that contain a verb or phrase to address a connection between concepts.
- Crosslinking is very instructive to illustrate a student's understanding of material.
- The direction of arrows as well as the verbs chosen will help illustrate causation. These are organically developed by the students during the mapping process.

Specifications based grading rubric

	Pass	Fail	
Product	Content	All relevant concepts are included	Few relevant facts or concepts are included or correct
	Logic and understanding	Understanding of facts and concepts is clearly demonstrated by correct concept-links	Poor understanding of facts and concepts with significant errors in links
	Integration	The relationship between clinical and basic science concepts is clearly shown by valid cross-links between these domains	Few relationships between clinical and basic science concepts are shown or are correct
	Illness script	Illness script is neat, clear, legible, has easy-to-follow and has no spelling errors	Illness script is untidy and information is difficult to follow and spelling errors
Process	Participation	All members participate effectively.	Members do not participate.
	Collaboration	Individuals working in a team contribute equally; Members encourage input from each other equally; Individuals working in a team	Certain members appear to dominate or refrain from contributing; no established collaborative relationships; unable to reach agreement.
	Team Dynamics	Members are able to reflect on team process and react to dynamics to achieve efficient team functioning; individual contributions are blended to generate a cohesive product	There is no efficiency to team functioning; no distinct roles; unable to reach agreement or produce a cohesive product.
	Communication	Group demonstrates the ability to communicate and work effectively and treats all members with respect and sensitivity.	Group is unable to communicate and work effectively. Discord is evident in the team.

Conclusion/Discussion: The change in STEP-1 scoring represented a monumental shift in medical education in the United States. Embracing this change afforded the opportunity to develop a novel, contemporary medical curriculum that supports our learners in the transition to expert, team-oriented physicians.

Acknowledgements: This project is currently funded by the VT Center for Teaching and Learning. We would like to thank the faculty of DBSE for their contributions to the project design and