

INSTRUCTIONAL DESIGNS FOR ADAPTIVE & PERSONALIZED LEARNING

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A top-down view of a desk with various items: a white mug with coffee, a silver laptop, a pen, a pair of glasses, and a large green leaf. The background is a light, neutral color.

ADAPTIVE LEARNING

Meaning

Adaptive learning is an interactive method that generally harnesses the logic of computers to create individualized pathways for student learning

Adaptive learning is part of interactive learning, which addresses the needs of individuals through **learning pathways, effective feedback, and supplemental resources**, as opposed to a one-size-fits-all curriculum (Kurt, 2021)

Identify small knowledge units

1

Develop Assessment and Feedback

2

Design an Adaptive Learning Path

3

STEPS

BEST PRACTICES

1

It is recommended to select the **adaptive platform** that provides instructors the ability to select specific learning activities and assessments to make sure that content is aligned with the course objectives

2

Present clearly the expectations for the course and the process of engaging in the adaptive material

3

Become familiar with the learning analytics provided by the adaptive learning tool

A top-down view of a desk with a laptop, a cup of coffee, a pen, glasses, and a plant leaf. The background is a light, neutral color. The text is centered in the middle of the image.

PERSONALISED LEARNING

Meaning

Personalized learning is a methodology which factors the learner's strengths, needs, personal interests, and learning goals, into one learning environment.

FACTORS

Learner Profile

Personal Learning Path

Competency Based
Curriculum

Flexible Learning
Environment

This approach, as with all **student-centered** approaches, requires the instructor to be a **facilitator** or guide rather than information giver

1

Approach

Project-based learning, problem-based learning, or case-based learning

2

Methods

Building in both self-assessments and opportunities for students and instructors to define the learners' prior knowledge is vital

3

Instructional Design

4

Learners should have a sense of control over their own learning experience

5

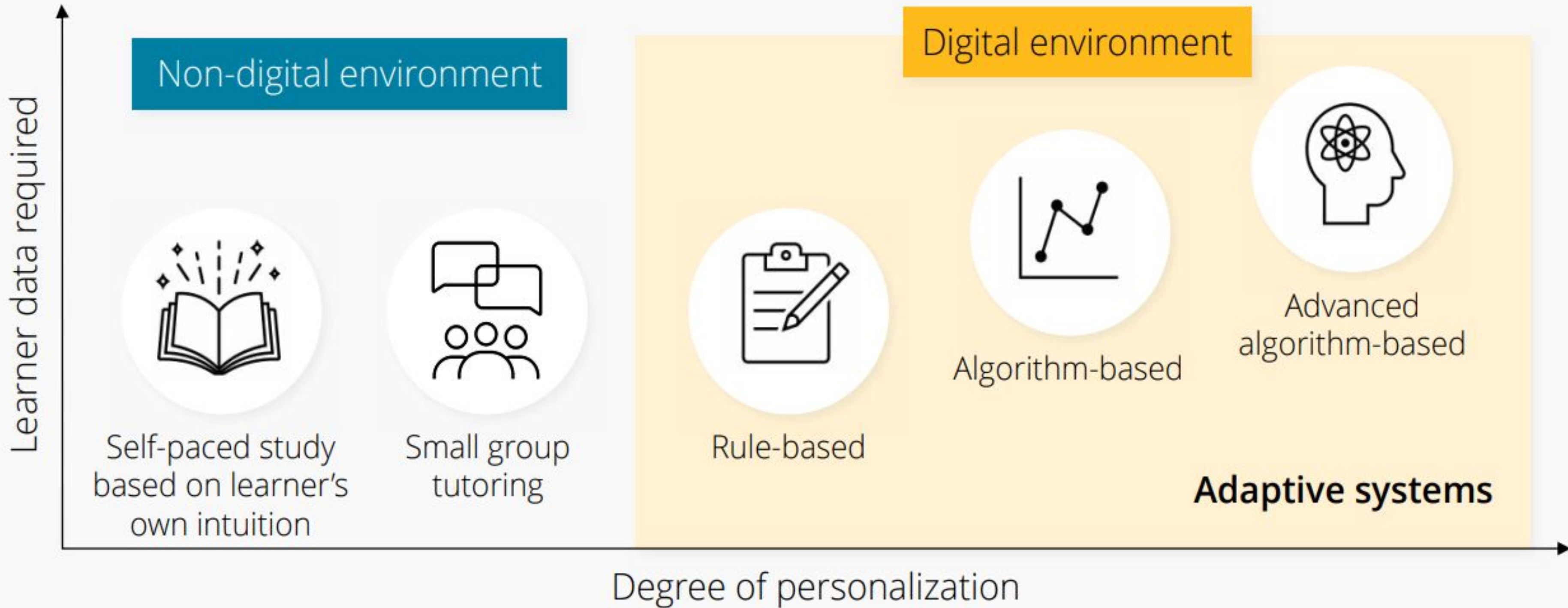
Learner agency is created by the collaborative efforts of learner and instructor in defining learning goals and a path to those goals.

6

Giving learners a voice in how they reach those goals empowers them and involves them in their own learning process.




Personalized learning continuum



COMPARISON


Personalized learning refers to a learning paradigm that aims at promoting students' individual development, emphasizing that the learning process should adopt appropriate teaching methods, techniques, content, starting points, processes, and evaluation methods to meet the individual characteristics and development potential of students, so that all aspects of students could be developed fully, freely and harmoniously
(Li 2015)

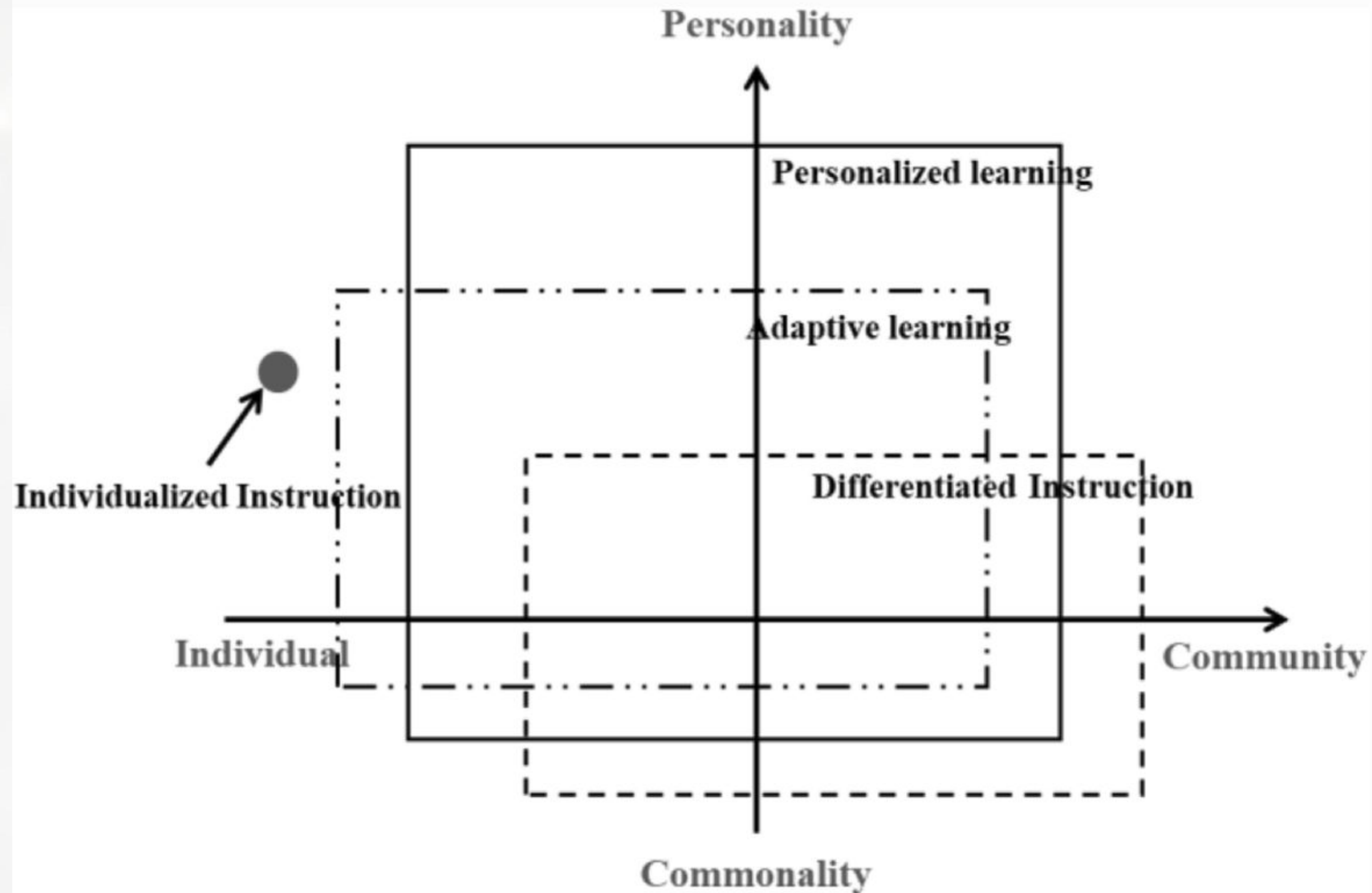


Personalized
Learning

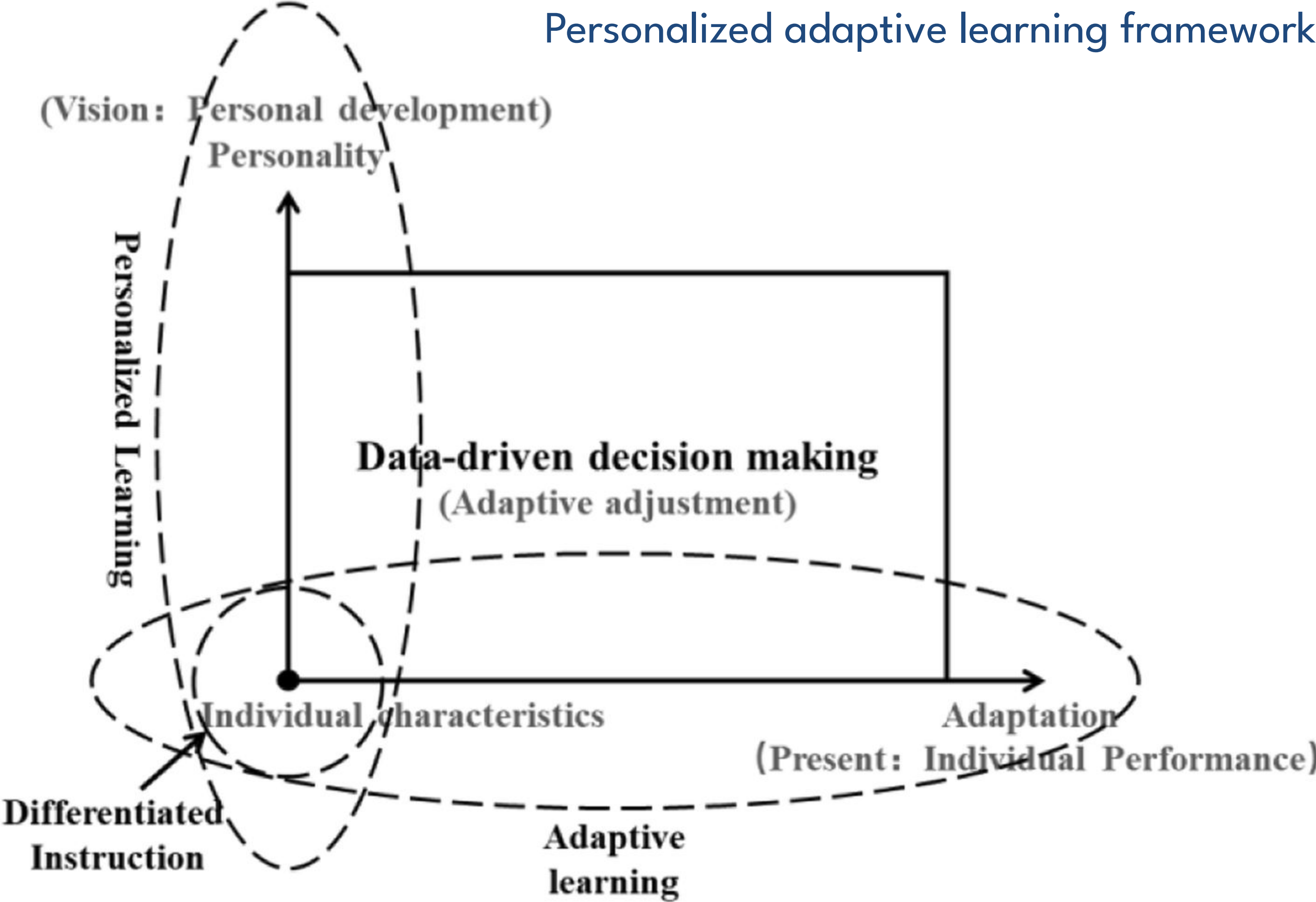
Adaptive
Learning

Adaptive learning strategies create a student experience that is modified based on a student's performance and engagement with the course materials. At its heart is an approach to instruction that relies on technology and data about student performance to adjust and respond with content and methodologies that develop a pathway to the student's mastery of a particular learning objective (Waters 2014).





Personalized adaptive learning framework





1


Adjust the teaching strategies based on the differences in individual characteristics (circular)

2

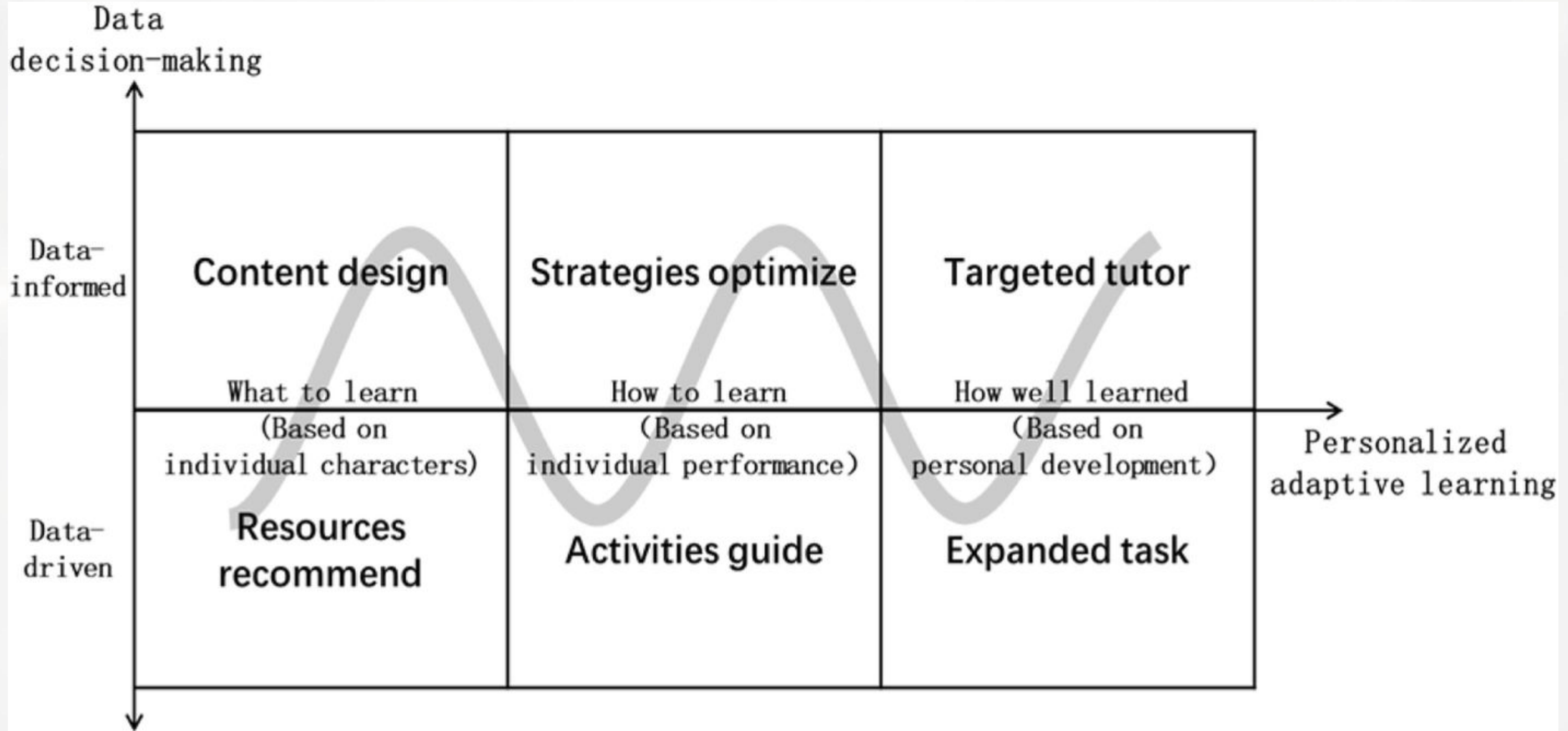
Adjust the teaching strategies combined with the differences and changes in current individual performance (horizontal ellipse)

3

Adjust the teaching strategies combined with the differences and changed in personal development vision (vertical ellipse).



Spectrum of adaptive adjustment instruction strategies



Role of ID

1

From static pathways → to dynamic pathways

2

From uniform content → to modular, flexible content

3

From fixed assessments → to continuous, embedded assessments



Some Useful Platforms

<https://www.khanacademy.org/teacher/khanmigo-tools>

Canvas.instructure.com

Moodle.org