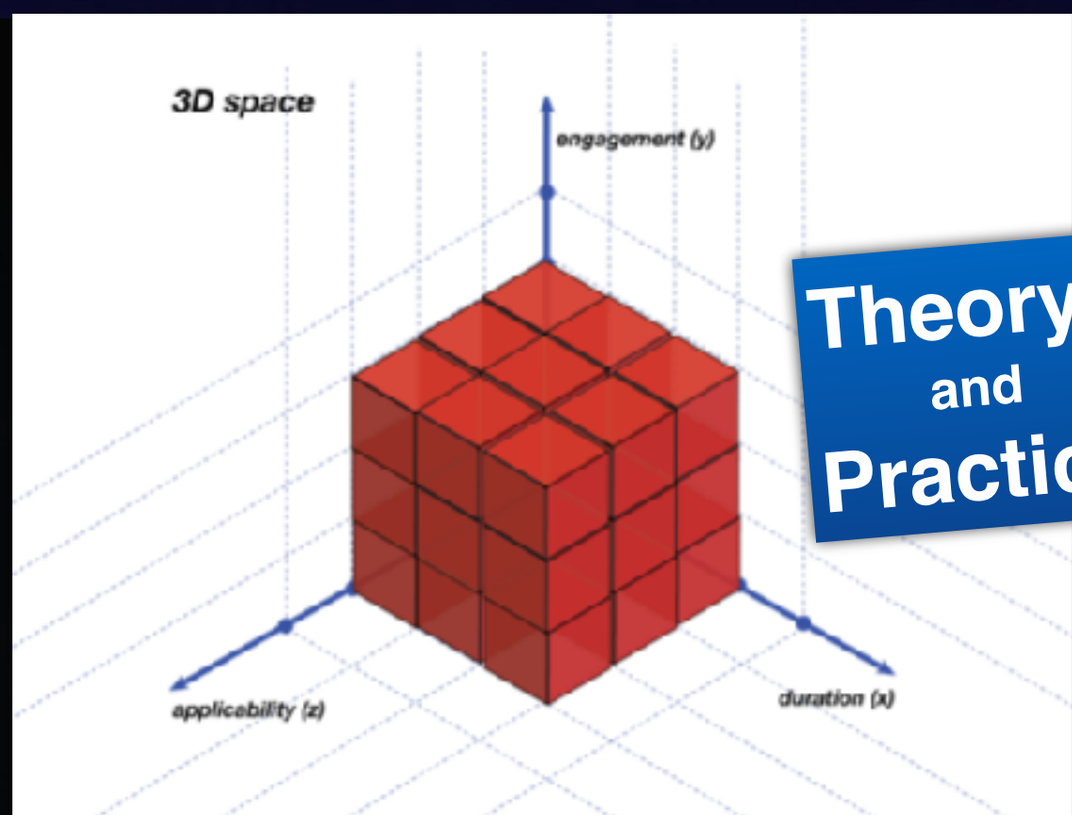
Revolutionize your teaching!

Murphy's 3D:CG Evaluation system

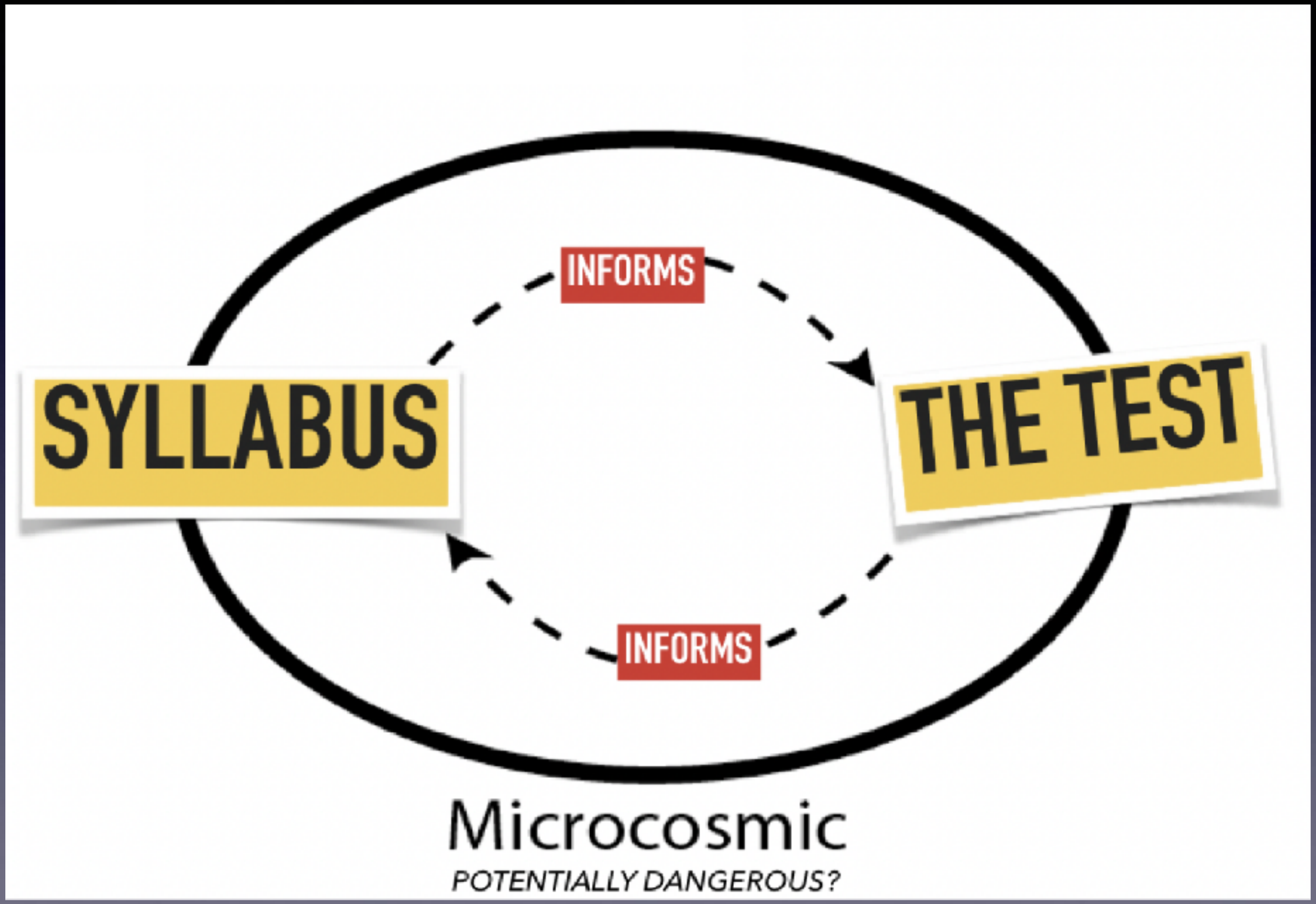


Theory and Practice

Featured Workshop
9:45-11:15 (90 min)

Robert S. Murphy
University of Kitakyushu
University of Nottingham
University of Oxford

Short Discussion Topic



Spaced repetition:

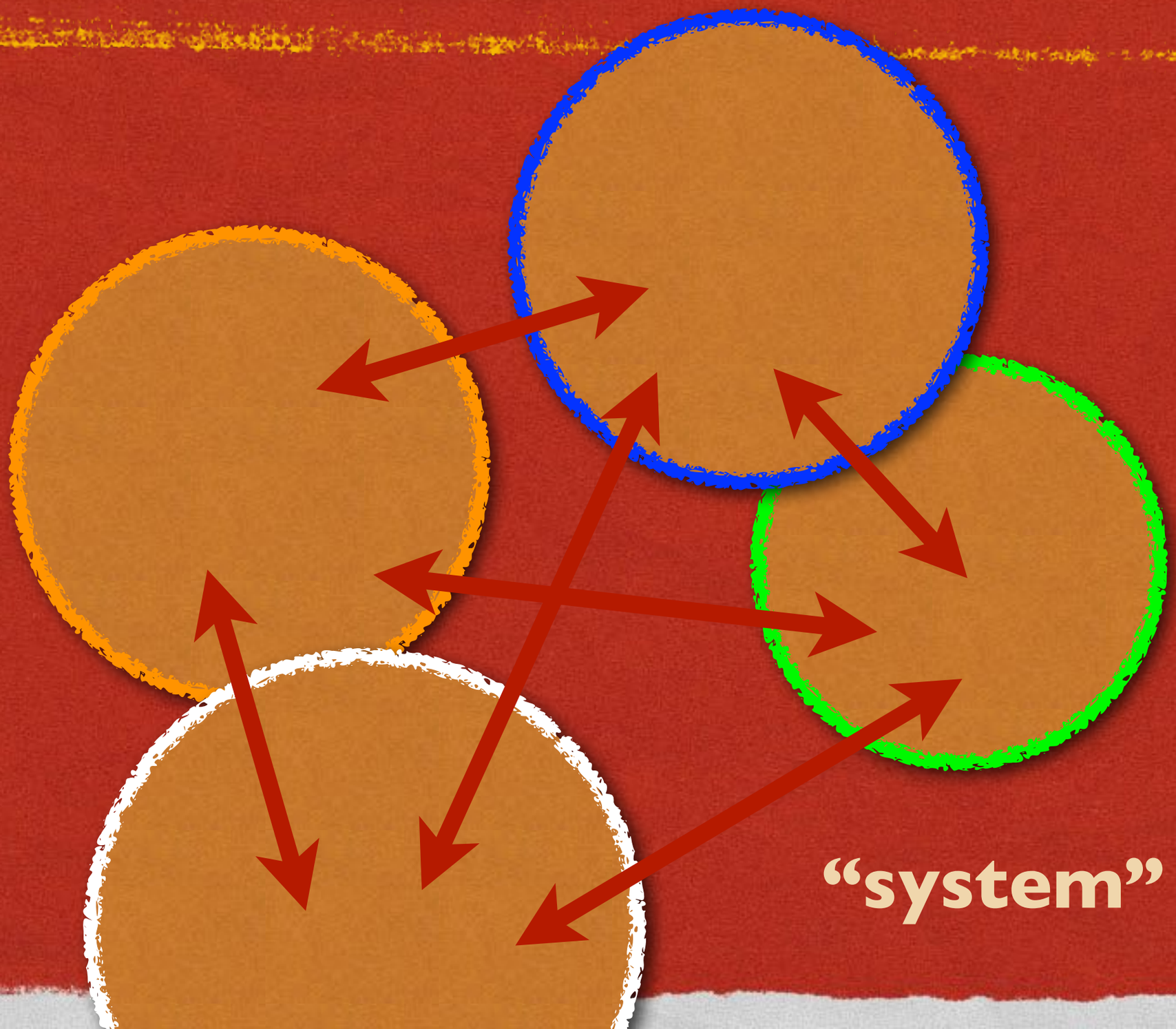
-A brief review from yesterday’s content
-Q&A from yesterday’s content

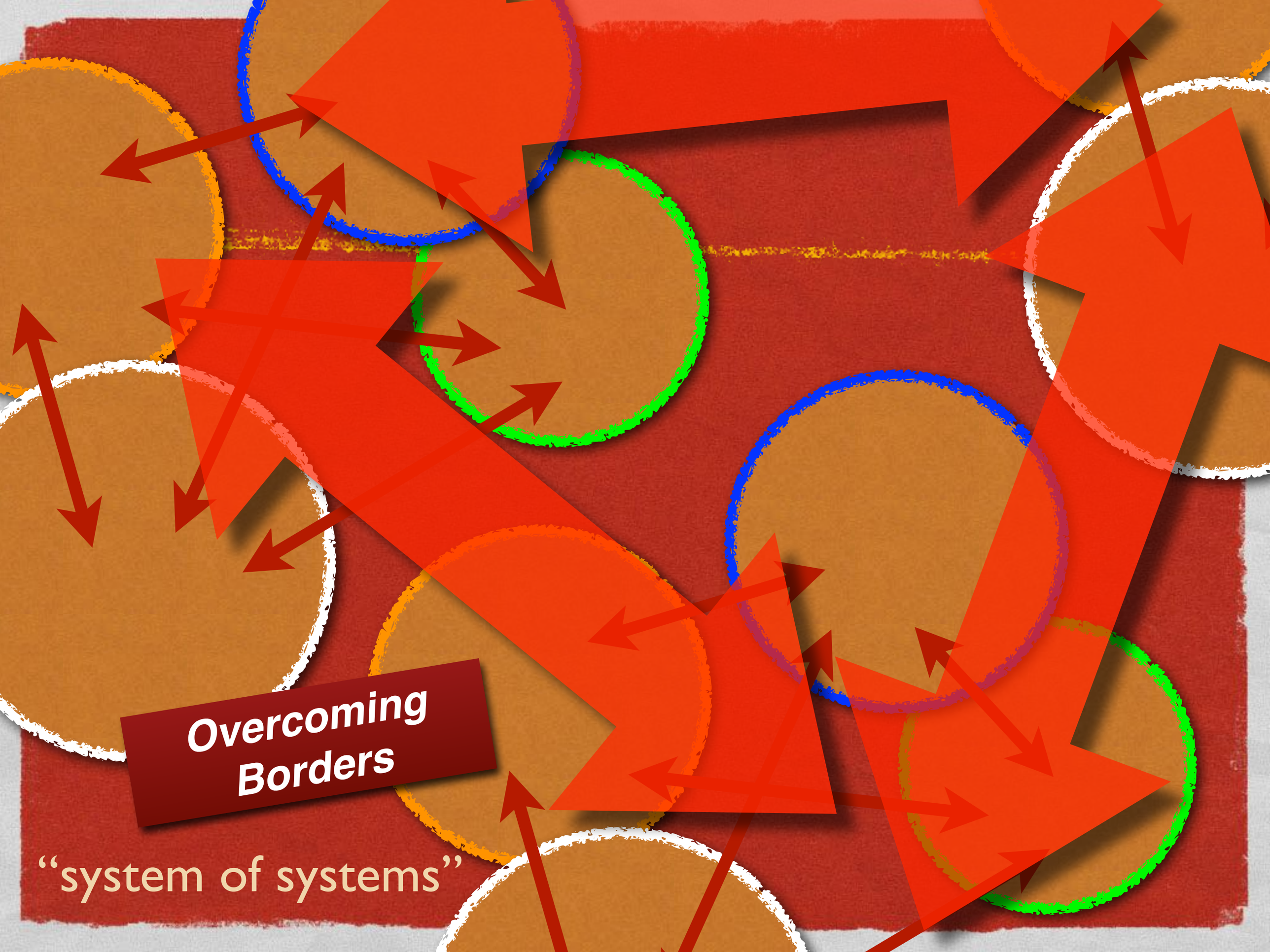
HOW DO WE LEARN?

“singular”
(idea/reflex)

HOW DO WE LEARN?

HOW DO WE LEARN?




Overcoming Borders
“system of systems”

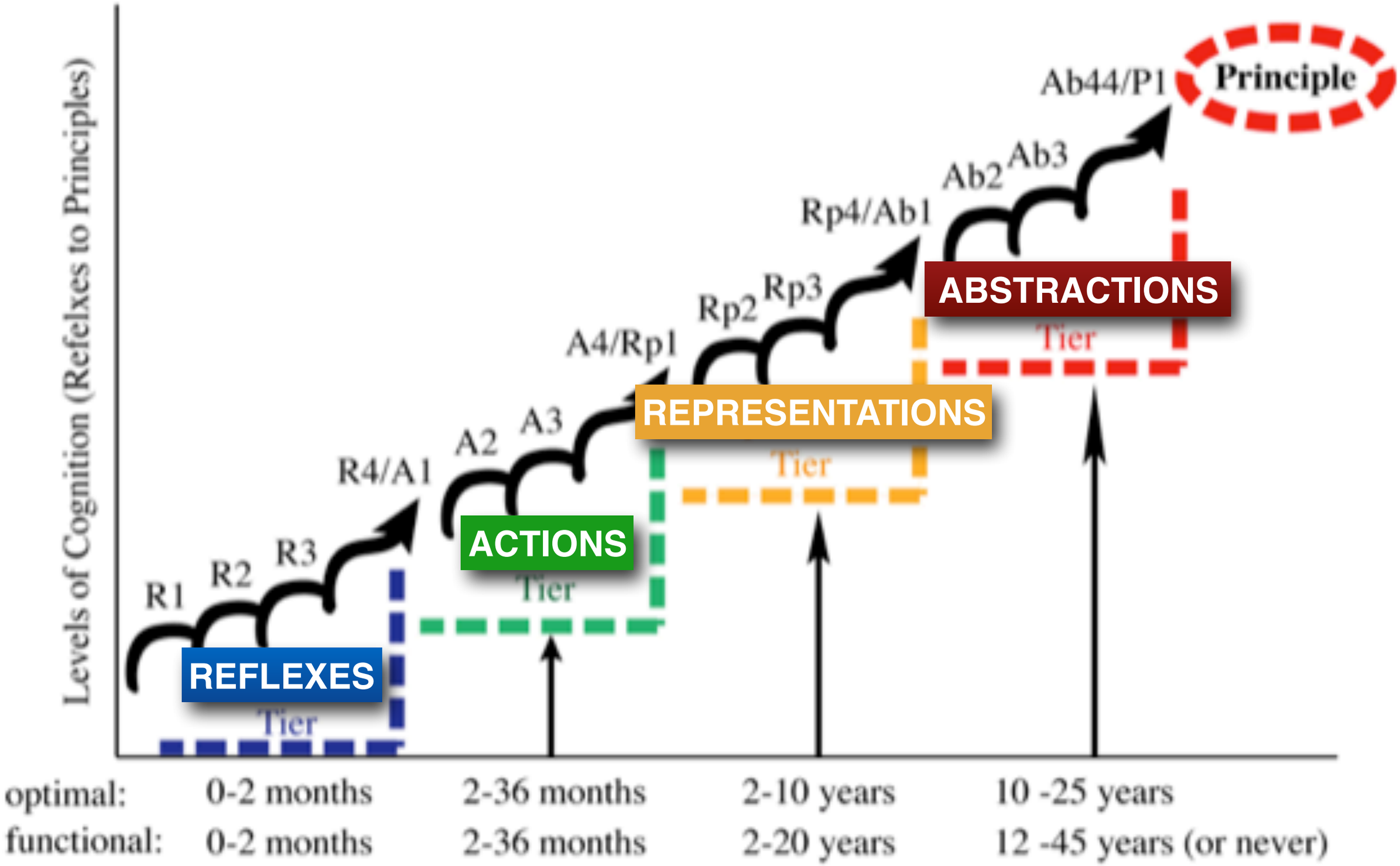


Fig. 1. The 13 levels and 4 tiers of development in Fischer's skill theory

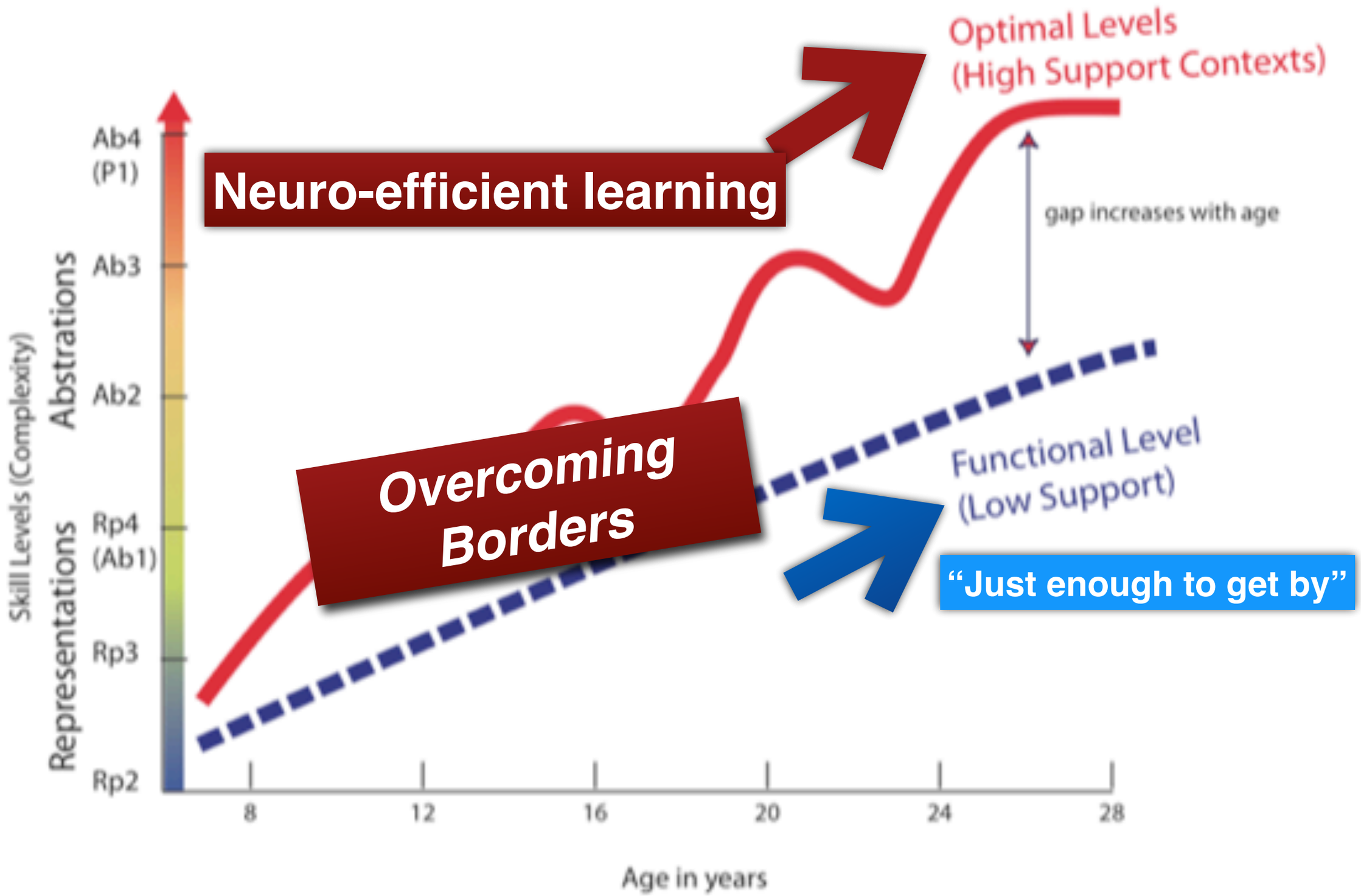
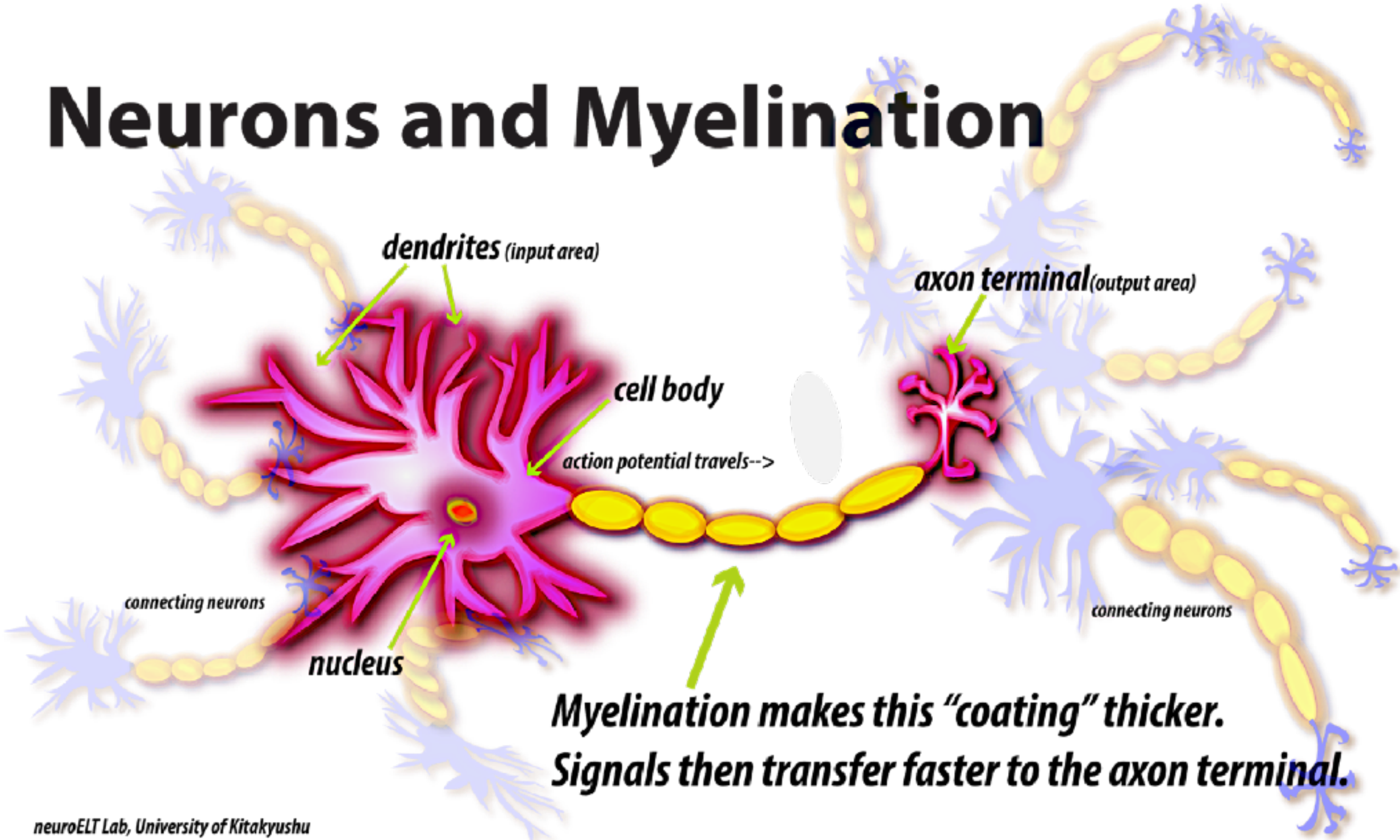
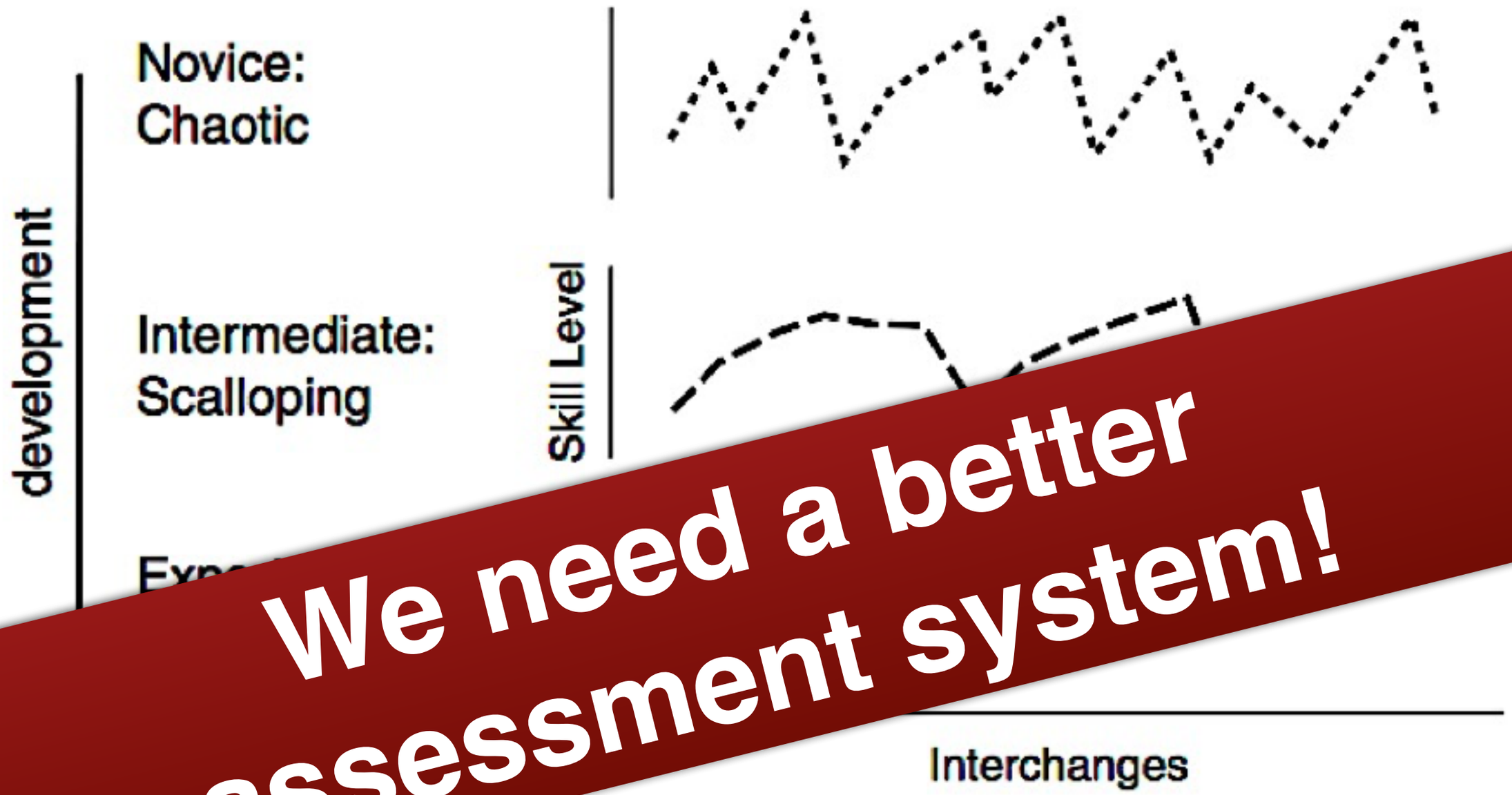


Fig. 2. Functional and Optimal levels gap widens with age (Murphy, 2009)

Why is learning not more straight-forward?



Reality of Learning (Micro-development)



We need a better assessment system!

How can standard rubrics keep track of this?

Overcoming Borders

-Autonomy
-Alignment with goals
-Feelings of ownership!

- *Keywords for great learning and teaching!*

Standard Rubric (materials evaluation)

Overcoming Borders

Materials Design Factor Assessment Sheet

Rich experiences	1 2 3 4 5
Varying genres	1 2 3 4 5
thetically pleasing	1 2 3 4 5
multimedia	1 2 3 4 5
ner discovery	1 2 3 4 5
Autonomic learning	1 2 3 4 5
Extensive listening	1 2 3 4 5
Extensive reading	1 2 3 4 5
Personalized content	1 2 3 4 5
Localized content	1 2 3 4 5

"What's wrong with this?"

Standard Rubric (teacher evaluation)

Ohio Teacher Evaluation System

Overcoming Borders

Teacher Performance Evaluation Rubric

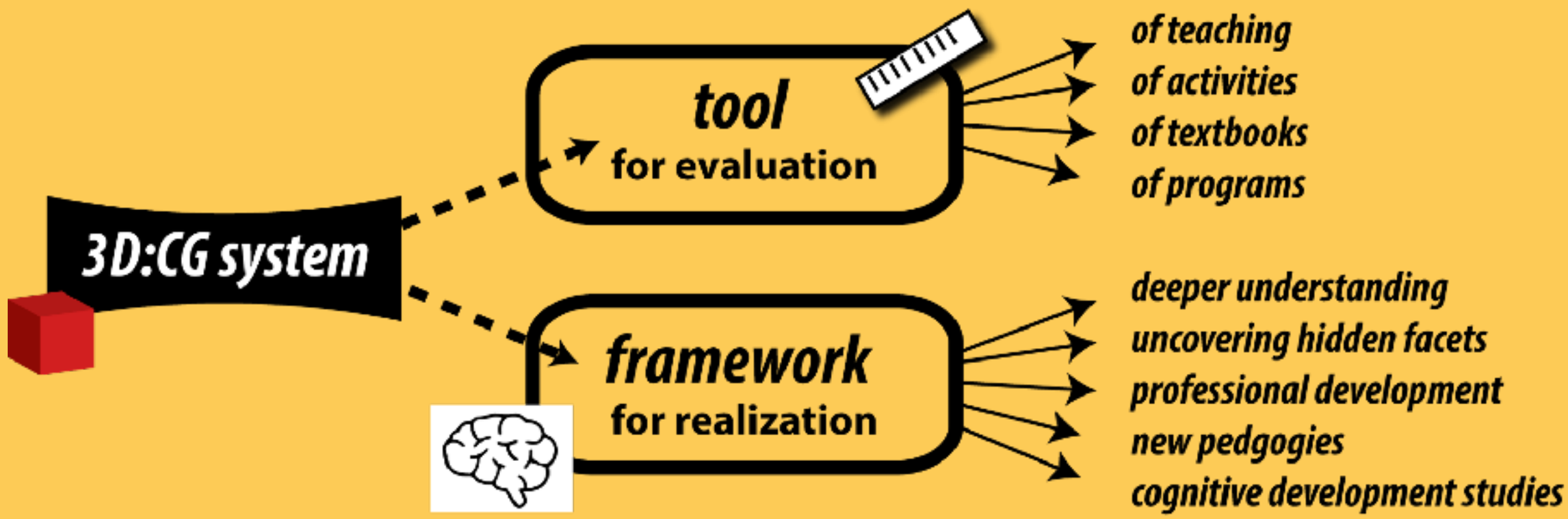
The *Teacher Performance Evaluation Rubric* is intended to be scored holistically. This means that evaluators [illegible] provides the best *overall* description of the teacher. The scoring process is expected to occur upon completion of each thirty (30) minute observa[illegible] and post-conference. The evaluator is to consider evidence gathered during the pre-observation conference, the observation, the post-observation conference, and classroom walkthroughs (if applicable). When completing the performance rubric, please note that evaluators are not expected to gather evidence on all indicators for each observation cycle. Likewise, teachers should not be required to submit additional pieces of evidence to address al indicators. The professionalism section of the rubric may use evidence collected during the pre-observation and post-observation conferences as well as information from the Professional Growth and/or Improvement Plan (if applicable).

Teacher Name: Dat

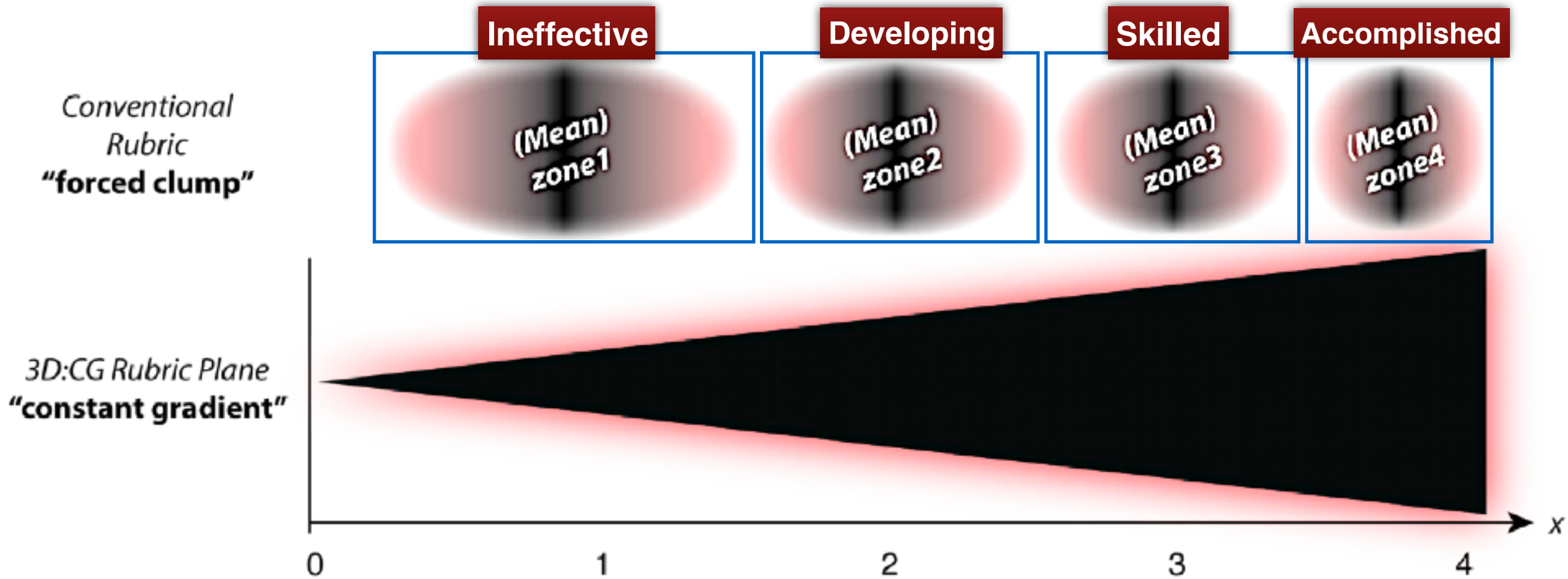
INSTRUCTIONAL PLANNING	Ineffective	Developing	Skilled	Accomplished
FOCUS FOR LEARNING (Standard 4: Instruction) *Sources of Evidence:* Pre-Conference	The teacher does not demonstrate a clear focus for student learning. Learning objectives are too general to guide lesson planning and are inappropriate for the students, and/or do not reference the Ohio standards.	The teacher communicates a focus for student learning, develops learning objectives that are appropriate for students and reference the Ohio standards but do not include measurable goals.	The teacher demonstrates a focus for student learning, with appropriate learning objectives that include measurable goal(s) for student learning aligned with the Ohio standards. The teacher demonstrates the importance of the goal and its appropriateness for students.	The teacher establishes challenging and measurable goal(s) for student learning that aligns with the Ohio standards and reflect a range of student learner needs. The teacher demonstrates how the goal(s) fit into the broader unit, course, and school goals for content learning and skills.
Evidence				

"What's wrong with this?"

3D:CG Evaluation System's main uses



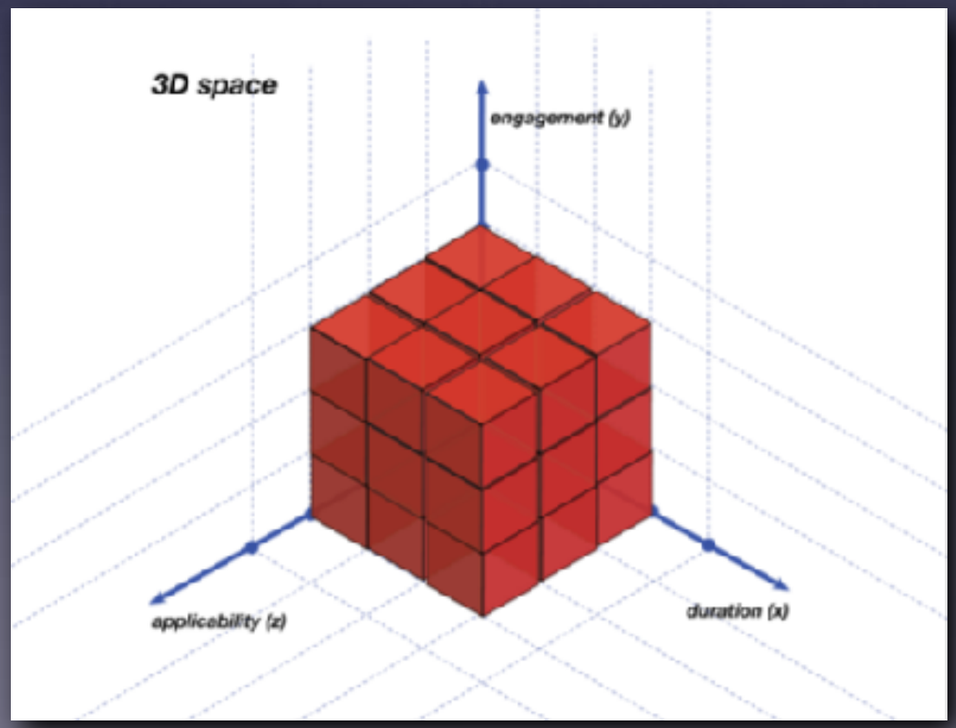
Conventional Rubric vs 3D:CG Rubric (single plane)



neuroELT Lab, University of Kitakyushu

The Prime Directives of Teaching Evaluation :

-To seek good design
-To seek good technique
-To seek good content



3 criteria for 3D:CG Assessment:

Design
Technique
Content

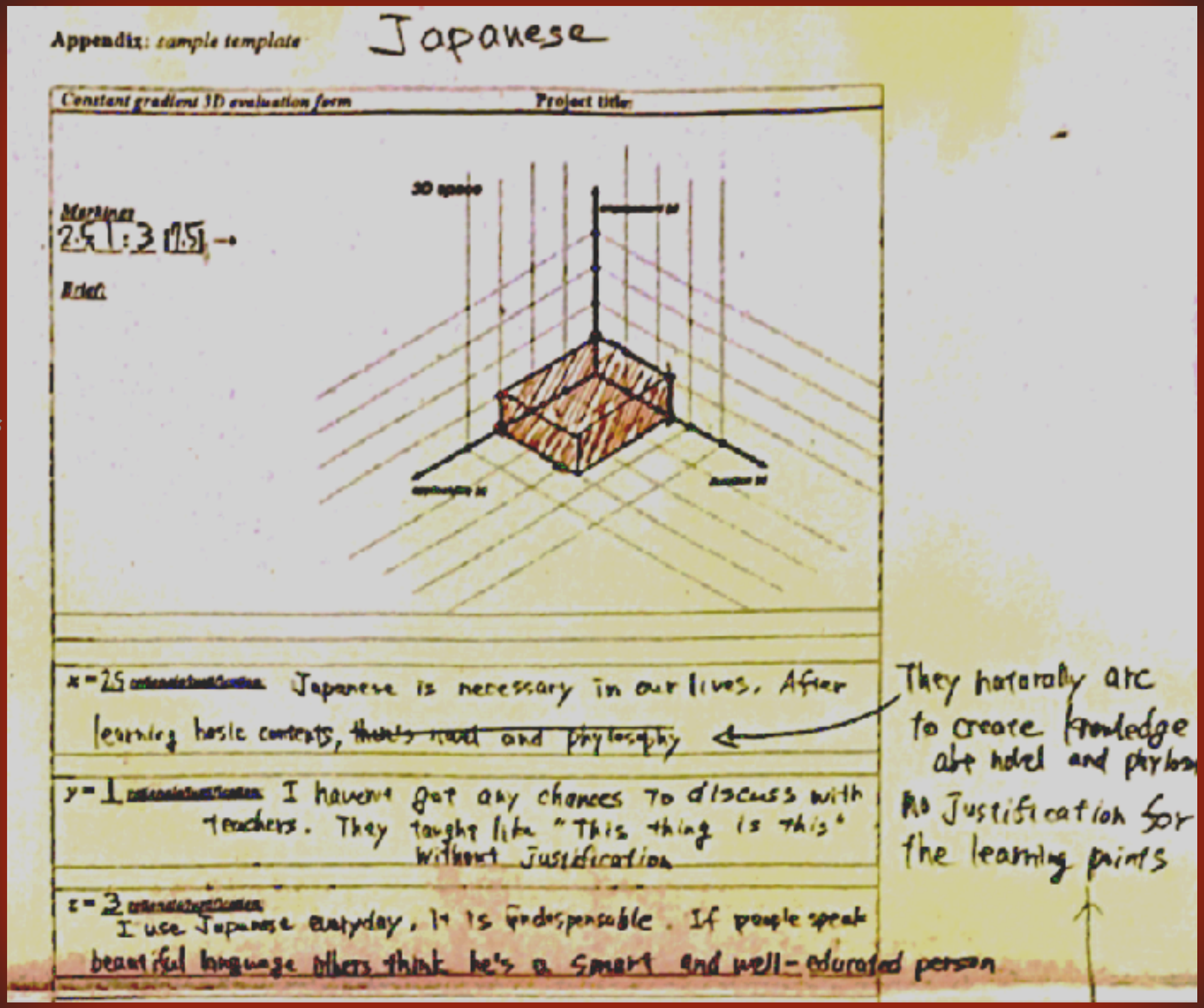
In question format:

(1) How *well connected* are the teaching points?

(2) How *engaging* is the teacher (or the teaching)?

(3) How *applicable* is the teaching to the goal, or real world?

3D:CG Evaluation forms



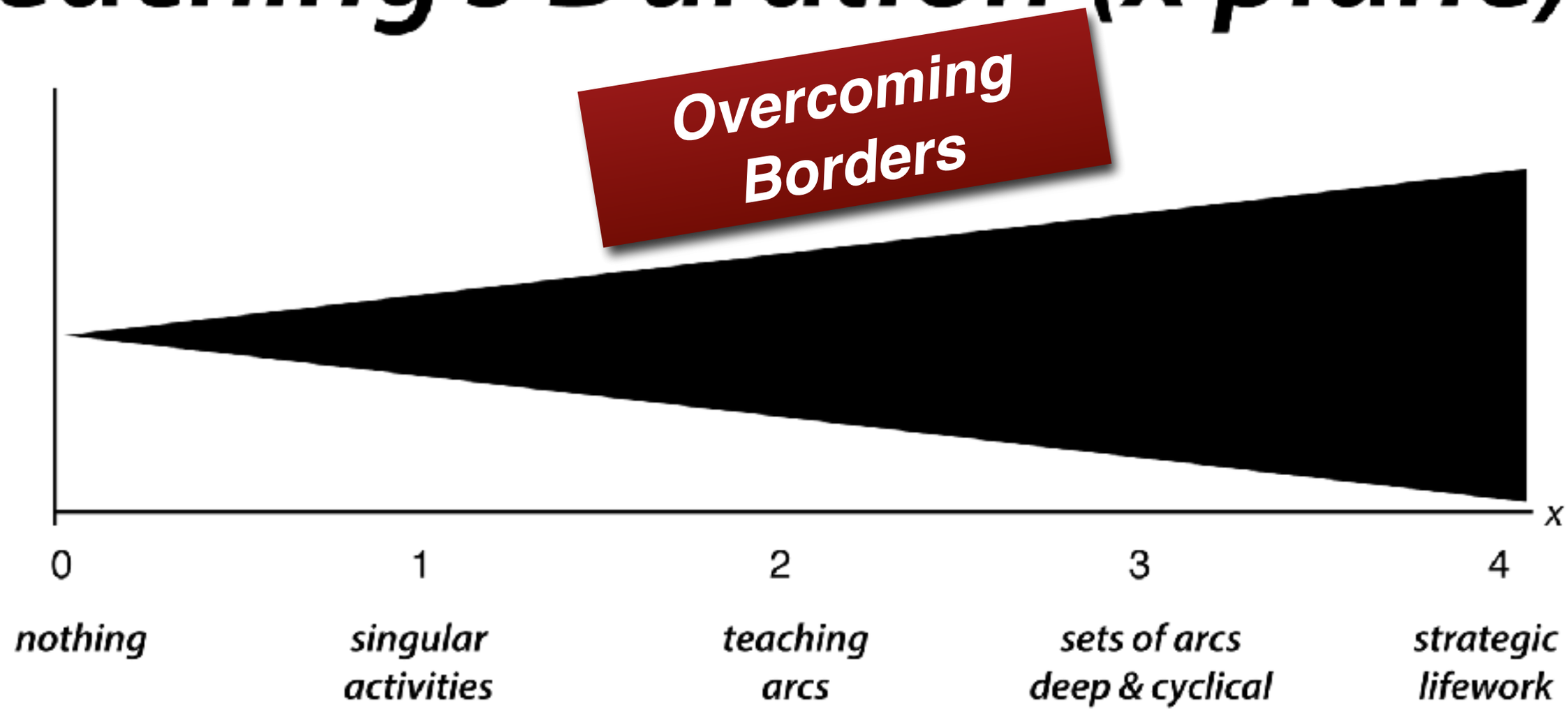
X, Y, Z PLANES:

Engagement

Learning points' connectedness

Real world connection

Teaching's Duration (x plane)



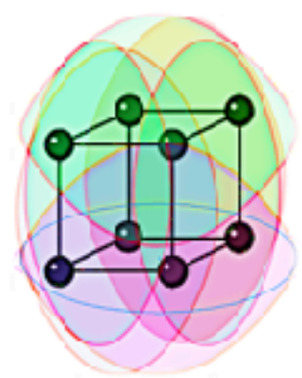
Integer-based coordinates are set from zero to four. Experimentation with evalutions along the constant gradient (decimals) is encouraged. Be prepared to justify your evaluation.

X, Y, Z PLANES:

Engagement

Learning points' connectedness

Real world connection

Coordinate (x)	Teaching's Duration explanation (Rubric)
(zero)	No activity established toward the set goal. (any movement toward the established goal is completely *left up to chance*)
(1) 	Singular activity; or, *sets of singular activities* that are not strategically nor effectively compounding into deeper learning of the subject. No significant strategies employed to instigate utility of the learning points. The student is, by default, "expected" to provide their own motivation or context to make something of the knowledge being provided. ("Bad" pedagogy because deeper understanding is *left up to chance*.)
(2) 	A strategic teaching arc; at least two major learning points have been strategically designed to, and do, compound into a deeper understanding of the subject. (Good teaching and good pedagogical designs begin here. Often in a short time span, as in a single school term, or school year.)
(3) 	A *series* of deeper understanding teaching arcs; major sets of deep arcs have been strategically designed to compound into a much deeper understanding of the field. (Example: a series of textbooks with compounding *cyclical* coverage of the material that profoundly deepens the understanding, typically achievable only across the span of several years of study.)
(4) 	Lifetime engagement (lifework); a lifetime of strategically compounding arcs that create the utmost levels of understanding. (This is extremely difficult to achieve. The compounding arc sets must be strategically designed for lifetime engagement toward compounding growth and the deepest possible understanding of the material at *lifework* level.)

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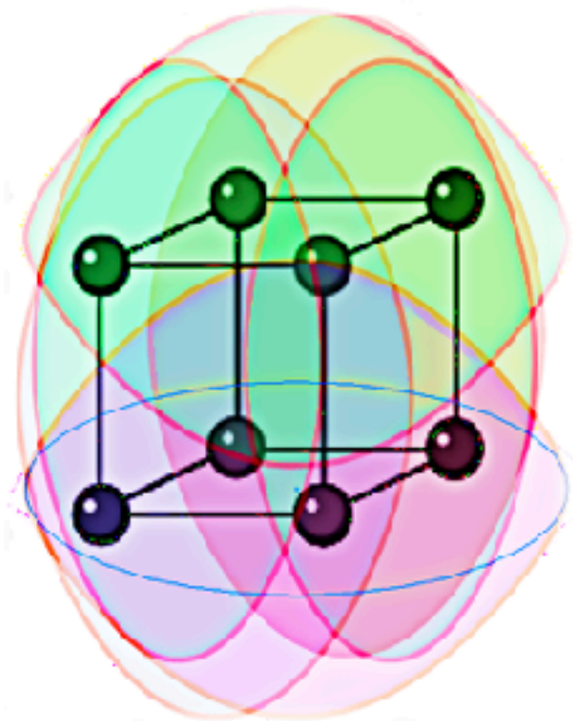
(4) 	Lifetime engagement (lifework); a lifetime of strategically compounding arcs that create the utmost levels of understanding. (This is extremely difficult to achieve. The compounding arc sets must be strategically designed for lifetime engagement toward compounding growth and the deepest possible understanding of the material at *lifework* level.)

Consider a class you teach,
or a class you took as a student.

Assess on this plane.

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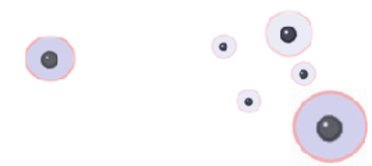
(1) 	Singular activity; or, *sets of singular activities* that are not strategically nor effectively compounding into deeper learning of the subject. No significant strategies employed to instigate utility of the learning points. The student is, by default, "expected" to provide their own motivation or context to make something of the knowledge being provided. ("Bad" pedagogy because deeper understanding is *left up to chance*.)
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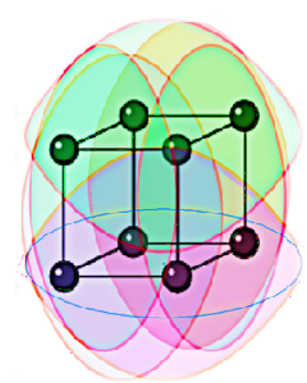
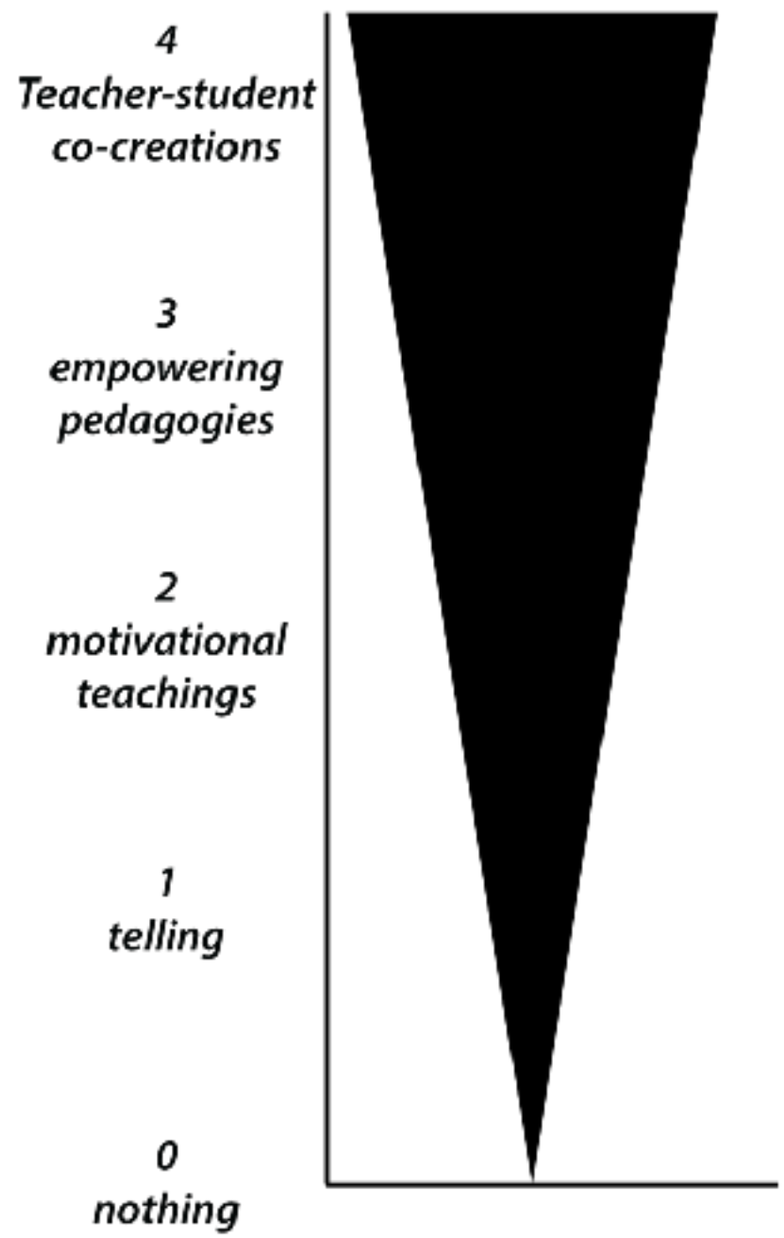
(4) 	Lifetime engagement (lifework); a lifetime of strategically compounding arcs that create the utmost levels of understanding. (This is extremely difficult to achieve. The compounding arc sets must be strategically designed for lifetime engagement toward compounding growth and the deepest possible understanding of the material at *lifework* level.)

Teaching's Engagement (y plane)



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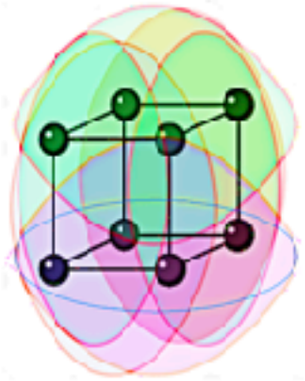
X, Y, Z PLANES:

Engagement

Learning points' connectedness

Real world connection

Coordinate (*y*)	Teaching's Engagement explanation (Rubric)
(zero)	No activity established toward the set goal. (any movement toward the established goal is completely *left up to chance*)
(1) 	Singular point or *sets of points* are lectured (told/read) to the student, top-down. The delivery may not be particularly motivational, nor effectively engaging to the student(s). (This may be summed up as "traditional teaching" or "lecturing", but it is not particularly *good* pedagogy because deeper understanding is *left up to chance*, and/or fully left up to the student.)
(2) 	Motivational teaching strategies are now present in the lesson(s); a pedagogical "bag of tricks" may be developed by the teacher and used to engage students in various ways. (Good teaching and good pedagogical designs begin here. Examples are, but not limited to: rapport building activities; telling jokes; managing to connect music, videos, and games to the learning objectives; etc.)
(3) 	*Empowering* activities are now present in the lesson(s) – to firmly establish students' feelings of ownership toward the learning goal and the gaining of confidence for autonomous study toward the learning goal. (Students feel the freedom and *confidence* to make significant choices on their way to the learning goal that they now fully 'own'— these highly motivated students are now working at peak levels of engagement. The teacher's role is now significantly more facilitator-like.)
(4) 	Teacher-student co-creation at the deepest levels of understanding for both the student and the teacher. This level is only possible when both the teacher and the student are working at their peaks toward the goal – with the professional advisement and full engagement of the teacher (co-creating a mutually driven high support context), the student is able to reach higher than their norm. This level of engagement is also a real learning experience for the teacher as they co-create new knowledge on their way to the learning goal together with the student. (The roles of the teacher and student are now blurred, as the deepest levels of understanding [for that particular goal] are achieved only because of mutual participation; the teacher alone, or the student(s) alone could not have attained the same outcome, at this level of excellence.)

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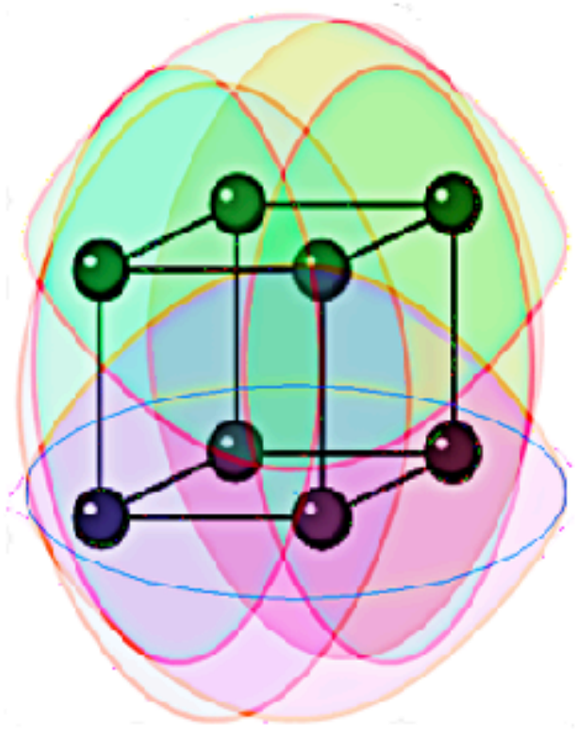
(4) 	Teacher-student co-creation at the deepest levels of understanding for both the student and the teacher. This level is only possible when both the teacher and the student are working at their peaks toward the goal – with the professional advisement and full engagement of the teacher (co-creating a mutually driven high support context), the student is able to reach higher than their norm. This level of engagement is also a real learning experience for the teacher as they co-create new knowledge on their way to the learning goal together with the student. (The roles of the teacher and student are now blurred, as the deepest levels of understanding [for that particular goal] are achieved only because of mutual participation; the teacher alone, or the student(s) alone could not have attained the same outcome, at this level of excellence.)

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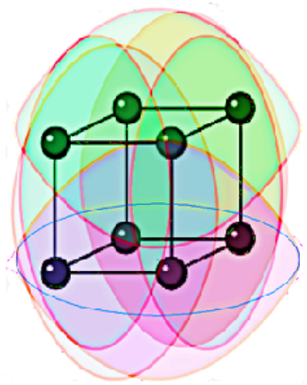
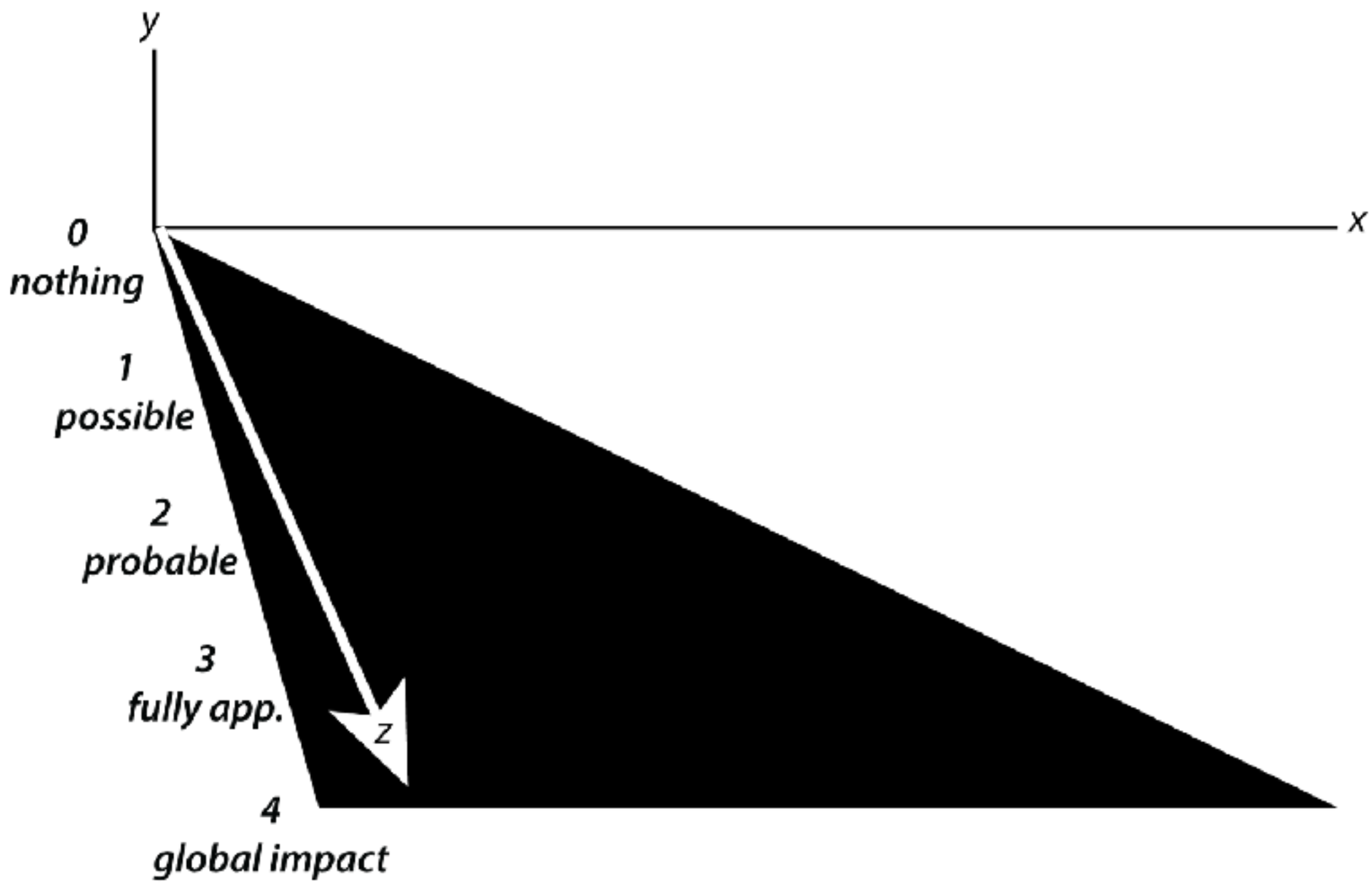
(4) 	Teacher-student co-creation at the deepest levels of understanding for both the student and the teacher. This level is only possible when both the teacher and the student are working at their peaks toward the goal – with the professional advisement and full engagement of the teacher (co-creating a mutually driven high support context), the student is able to reach higher than their norm. This level of engagement is also a real learning experience for the teacher as they co-create new knowledge on their way to the learning goal together with the student. (The roles of the teacher and student are now blurred, as the deepest levels of understanding [for that particular goal] are achieved only because of mutual participation; the teacher alone, or the student(s) alone could not have attained the same outcome, at this level of excellence.)

Teaching's Applicability (z plane)



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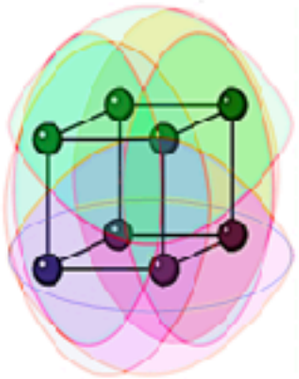
X, Y, Z PLANES:

Engagement

Learning points' connectedness

Real world connection

Coordinate (z)	Teaching's Applicability explanation (Rubric)
(zero)	No activity established toward the set goal. (any movement toward the established goal is completely *left up to chance*)
(1)	Possible real world applications, however unlikely. No significant attempts being made to connect the learning points to the student's future.
(2) 	Probable real world application. It is likely the content will contribute positively to the learner's future.
(3) 	Full real world applicability realized. (Examples: basic mathematics, computer skills, etiquette)
(4) 	Significant global impact. The teaching affects the learner at a level that not only fully applies to the real world, but it transforms the world in a significant way. (This applies to the production of world leaders in any field)

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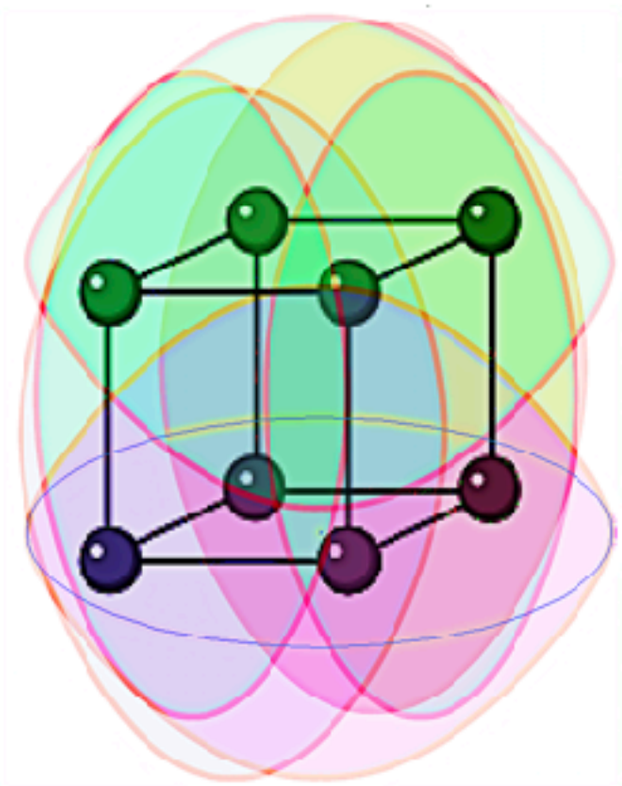
(4) 	Significant global impact. The teaching affects the learner at a level that not only fully applies to the real world, but it transforms the world in a significant way. (This applies to the production of world leaders in any field)

Consider a class you teach,
or a class you took as a student.

Assess on this plane.

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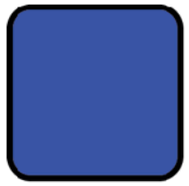
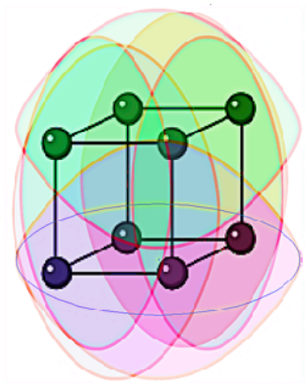
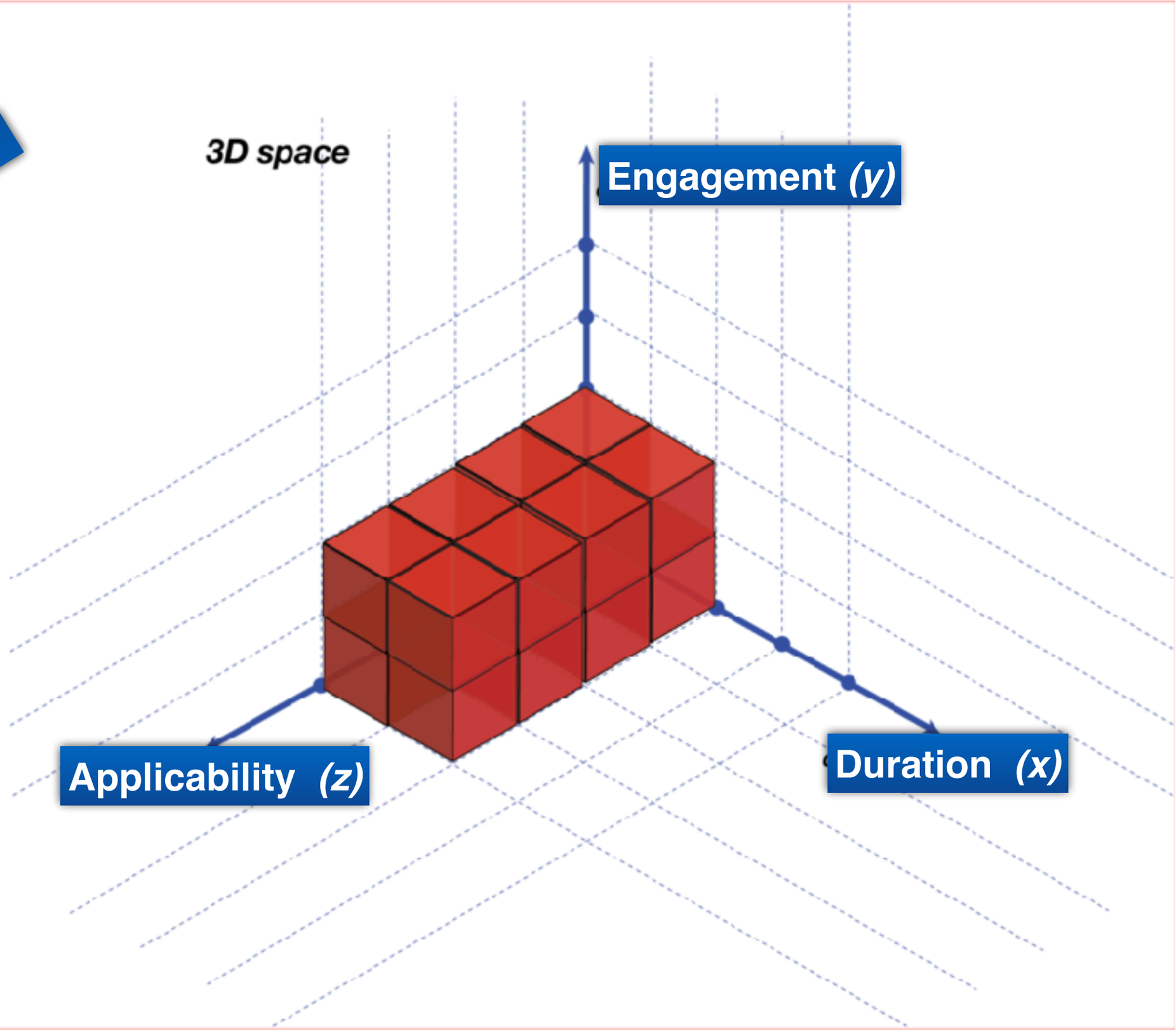
(3) 	Full real world applicability realized. (Examples: basic mathematics, computer skills, etiquette)
(4) 	Significant global impact. The teaching affects the learner at a level that not only fully applies to the real world, but it transforms the world in a significant way. (This applies to the production of world leaders in any field)

Evaluation card #2

2:2:4 [16] →

While the program produces global leaders, the delivery has much room for improvement.



Twelve merits of the 3D:CG evaluation system:

(Rate the importance for you 1-5)

(1) It identifies the strengths and weaknesses of any pedagogical design put to it, on three meaningful planes.

(2) It has Fischer's Dynamic Skill Theory as its backbone.

(3) As a framework for thought, it graphically represents the strengths and weaknesses of teaching designs in 3D format, making the designs tangible in a way that induces newer thinking regarding pedagogy (creating a high support context)

Twelve merits of the 3D:CG evaluation system:

(Rate the importance for you 1-5)

(4) It uses the product [Π], not a sum [Σ] of the evaluation marks, significantly affecting (lowering) the overall evaluation involving marks inclusive of zero and/or one.

(5) Each of the three rubrics may be used as stand-alone rubrics, if necessary.

(6) The mathematical notation of the coordinates (x, y, z) and their product [Π] are simple to learn and implement.

Twelve merits of the 3D:CG evaluation system:

(Rate the importance for you 1-5)

(7) It can be given to students to evaluate their textbooks, course, and teacher's delivery, etc., with the added benefit of being able to train students to be more critical thinkers. As a tool and as a framework, it trains the student to think more deeply about their studies, their school, and how it all applies to their future.

(8) Usage of the rubrics and templates in the classroom context can be its own formidable lesson plan. Often described as "theraputic" by students.

Twelve merits of the 3D:CG evaluation system:

(Rate the importance for you 1-5)

(9) The 3D:CG evaluation quickly and efficiently provides a comprehensive roadmap on how to improve the teaching.

(10) Evaluating from zero to 4: compels teachers to notice that "zero" evaluation is the real starting point (not 1). In contrast with conventional rubric systems, there is no "forced clumping" of data.

Twelve merits of the 3D:CG evaluation system:

(Rate the importance for you 1-5)

(11) 3D:CG evaluation is more comprehensive than using the conventional rubrics because it allows decimal points between integers. (Infinite possibilities)

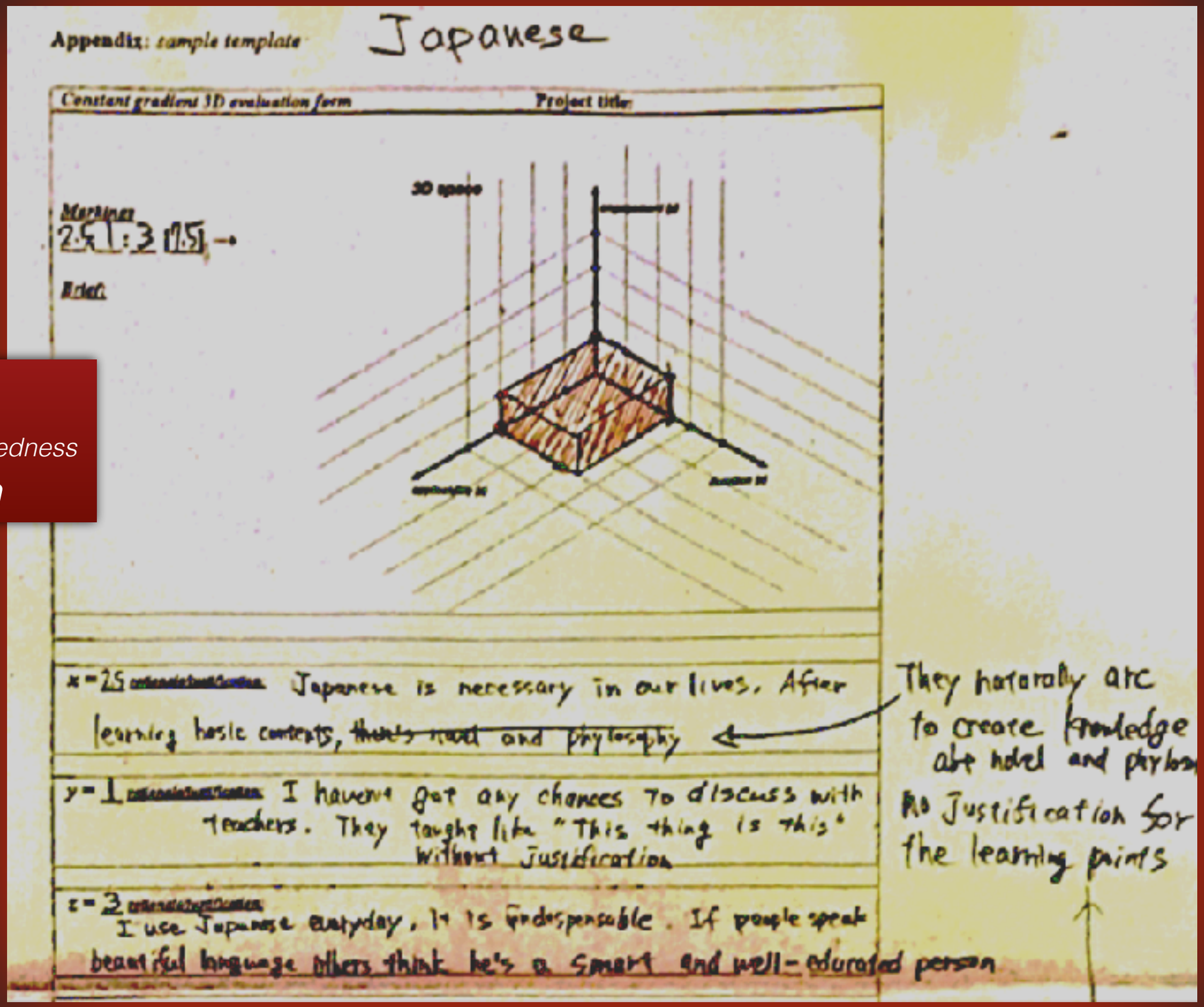
(12) 3D:CG Evaluation offers a comprehensive way to uniformly assess any pedagogical system. It is now possible to directly compare textbooks of completely different methodologies—the results that are comprehensive, and insightful.

3D:CG Evaluation forms

It's your turn now!

x, y, z planes:

Engagement
Learning points' connectedness
Real world connection


Appendix: sample template

Japanese

Constant gradient 3D evaluation form

Project title

3D space

Markings

2.5 1 : 3 1.5

Brief:

x = 2.5 Japanese is necessary in our lives. After learning basic contents, ~~thinks need and phylosophy~~

y = 1 I haven't got any chances to discuss with teachers. They taught like "This thing is this" without justification

z = 3 I use Japanese everyday. It is indispensable. If people speak beautiful language others think he's a smart and well-educated person

They naturally are to create knowledge abt model and phylos

No justification for the learning points

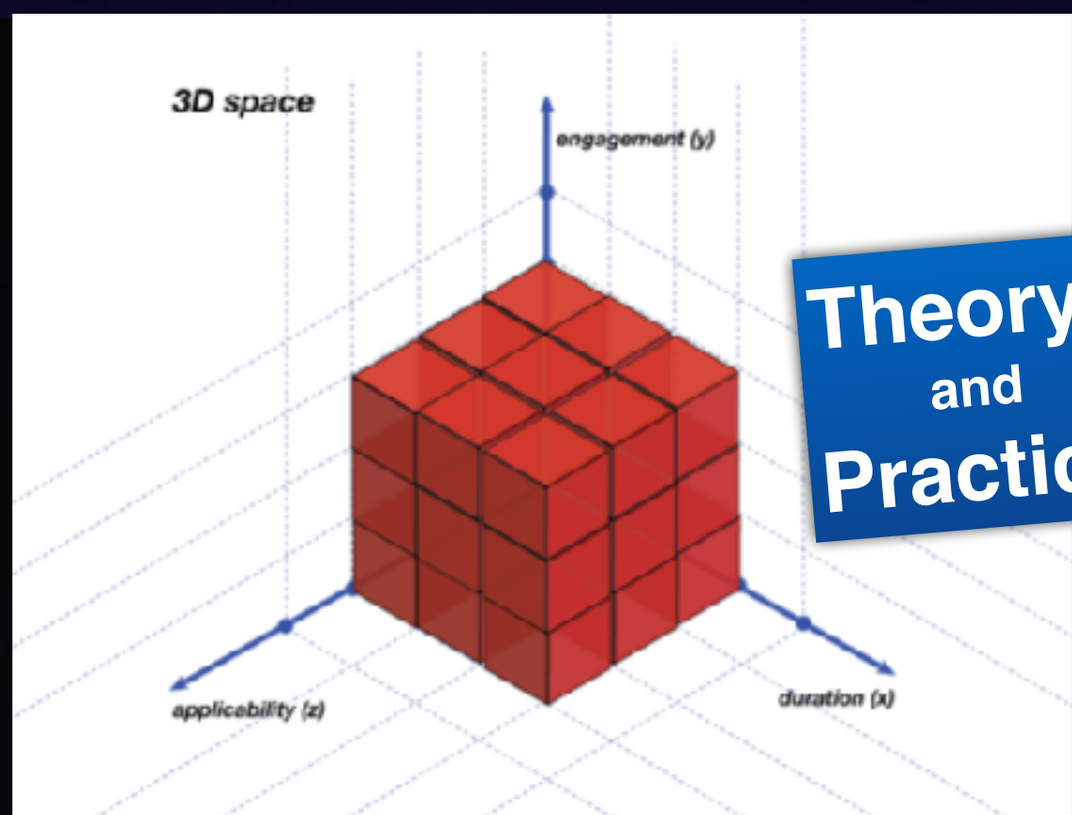
Fab-EFL.com —> downloads

Facebook

YouTube —> "neuroELT Maxims"
Teacher training video series

Revolutionize your teaching!

Murphy's 3D:CG Evaluation system



Theory and Practice

Robert S. Murphy

University of Kitakyushu
University of Nottingham
University of Oxford

Featured Workshop
9:45-11:15 (90 min)