# FUTURE & LEARNING & WAB 2021



connect · inspire · challenge: make a difference





#### 家长代表培训: Level 1 为什么 我们要进行FLoW21? Why ARE we doing FLoW21?

#### 4 Big Reasons 四大原因

- 1.new technologies are changing everything we do, including school. 新科技的发展正在改变所有的事情,包括学校
- 2.the conventional model of education is no longer sufficient. 传统的教育模式已经过时了
- 3.globally, kindergartens to universities are innovating. 从幼儿园到大学,全球都在创新
- 4.people learn differently and at different speeds.每个人的学习方式和速度都不一样

#### The Future of Employment

Carl Benedikt Frey & Michael Osborne



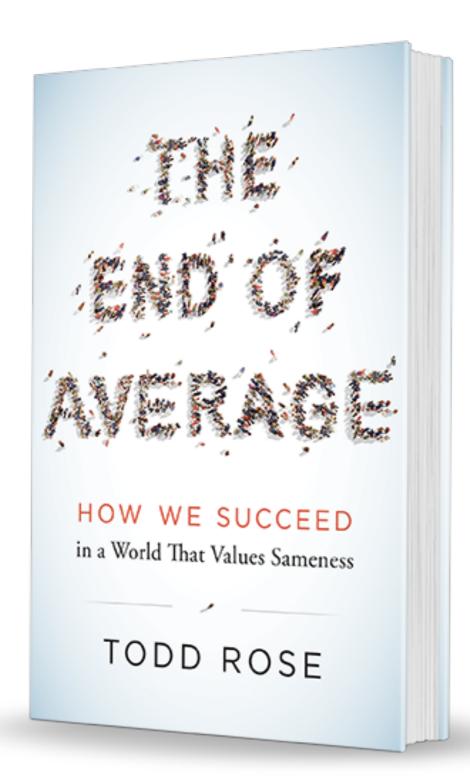
Published by the Oxford Martin Programme on Technology and Employment

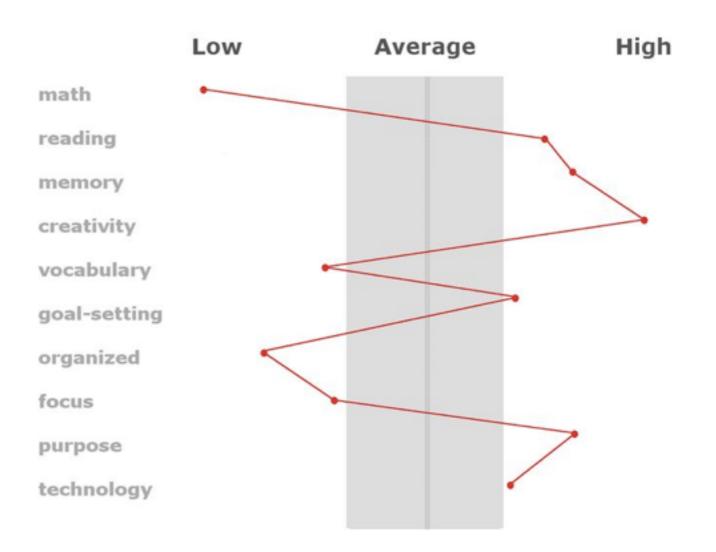




#### 702 类职业

"According to our estimates, about 47% of total U.S. employment is at risk.""根据 我们的预测, 47%的工作都存 在消失的危险。

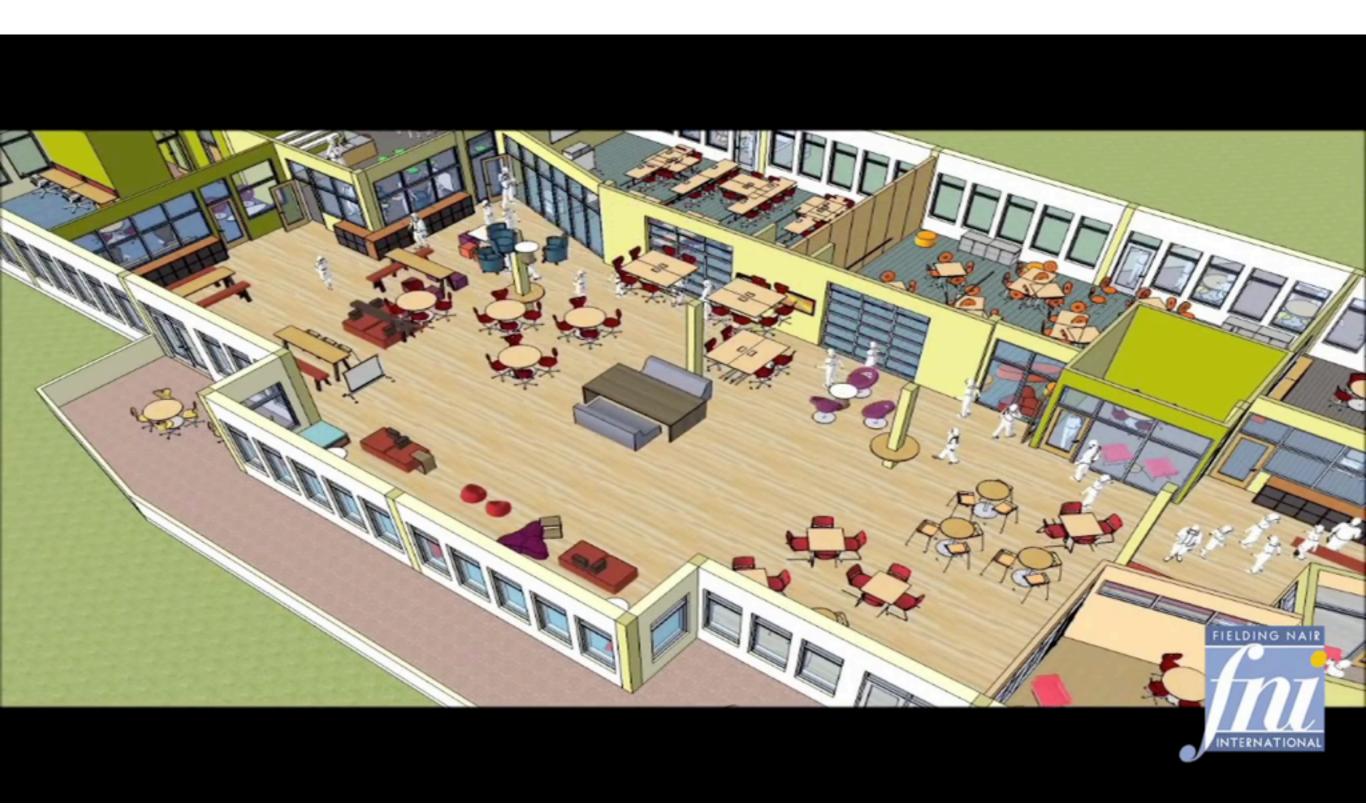


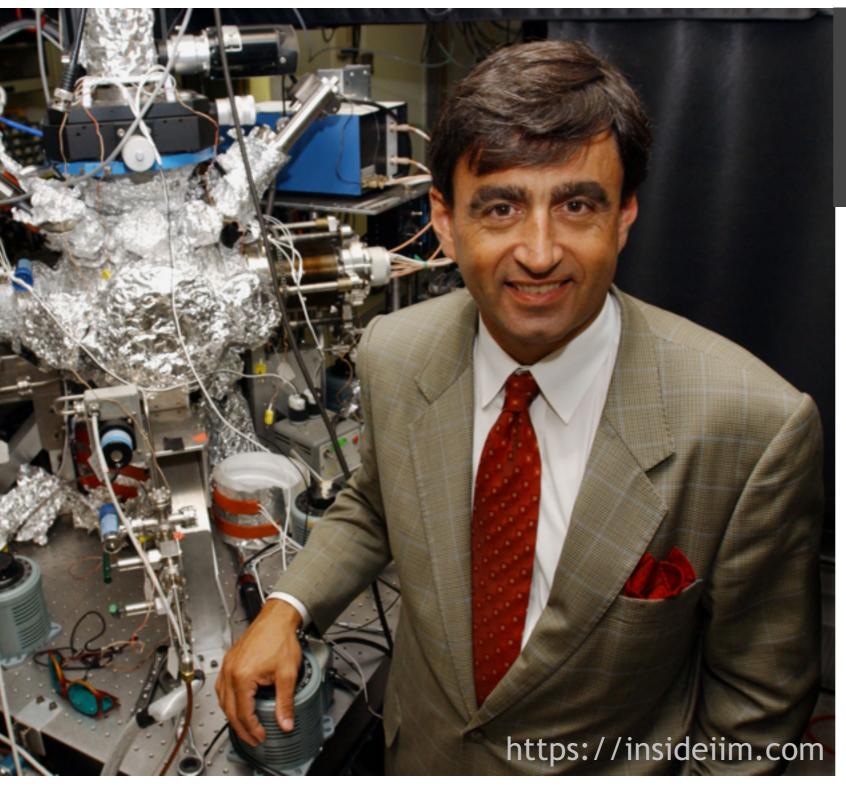


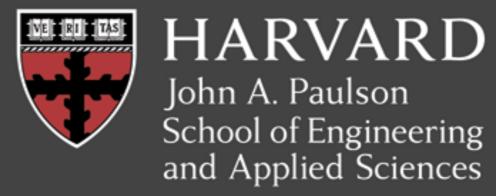
http://www.personalizelearning.com/search?q=jagged



# Learning Community 学习社区







# Prof. Eric Mazur 教授

**Balkanski Professor of Physics and Applied Physics** 

peer Instructions 同伴教学 Flipped Classrooms 翻转课堂

Active Learning 积极学习

results of his students

# Active learning increases student performance in science, engineering, and mathematics.

2014 S. Freeman, S.L. Eddy, M. McDonough, M.K. Smith, N. Okoroafor, H. Jordt, and M.P. Wenderoth.

"These results indicate that average examination scores improved by about 6% in active learning sections, and that students in classes with traditional lecturing were 1.5 times more likely to fail than were students in classes with active learning."



## 积极学习提升了学生在科学、工程和数学的表现

2014 S. Freeman, S.L. Eddy, M. McDonough, M.K. Smith, N. Okoroafor, H. Jordt, and M.P. Wenderoth.

"这些结果显示积极学习的课堂里的学生的平均成绩提升了6%;

传统讲座的课堂里的学生比积极学习的课堂 里的学生的不及格率大1.5倍



http://www.pnas.org/content/111/23/8410.full.pdf?sid=295a89fe-d47a-4d79-ae8a-f1ca42399300

#### John Hattie: Visible Learning

Meta analysis of 30,000 research papers an effect size of 0.40 = one year of growth

0.90
0.82
0.74
0.72
0.72
0.71
0.61
0.60
0.59
0.57
0.55
0.33
0.29
0.21
-0.33

## 约翰·哈蒂: 可见的学习

整合分析: 30,000 论文

an effect size of 0.40 = 1年的成长

教师可信度0.90班级讨论0.82交互教学 reciprocal teaching0.74师生关系0.72反馈0.72分散练习0.71不给学生戴标签0.61主动学习 active learning0.60直接教学 direct instruction0.59掌握学习0.57同班补习0.55电脑辅助教学0.33作业0.29班级人数0.21		
交互教学 reciprocal teaching       0.74         师生关系       0.72         反馈       0.72         分散练习       0.61         不给学生戴标签       0.60         直接教学 direct instruction       0.59         掌握学习       0.57         同班补习       0.55         电脑辅助教学       0.33         作业       0.29         班级人数       0.21	教师可信度	0.90
が生关系 0.72 反馈 0.72 分散练习 0.71 不给学生戴标签 0.61 主动学习 active learning 0.60 直接教学 direct instruction 0.59 掌握学习 0.57 同班补习 0.55 电脑辅助教学 0.33 作业 0.29 班级人数 0.21	班级讨论	0.82
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	作业	0.29
	班级人数	0.21
家庭体罚 -0.33	家庭体罚	-0.33



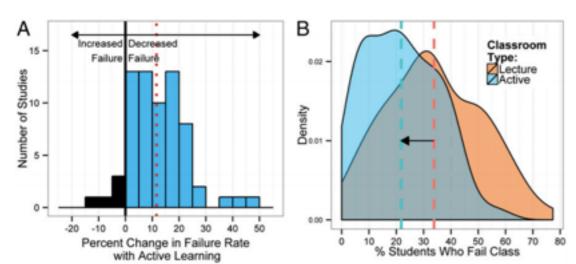
#### Twilight of the Lecture - Harvard Magazine

harvardmagazine.com

"Active learning" may overthrow the style of teaching that has ruled universities for 600 years.

https://harvardmagazine.com/2012/03/twilight-of-the-lecture





Active learning increases student performance in science ...

www.pnas.org

Active learning increases student performance in science, engineering, and mathematics : Eddya, Miles McDonougha, Michelle K. Smithb ...

http://www.pnas.org/content/111/23/8410.full.pdf?sid=295a89fe-d47a-4d79-ae8a-f1ca42399300

# ACTIVE LEARNING LEADS TO HIGHER GRADES AND FEWER FAILING STUDENTS IN SCIENCE, MATH, AND ENGINEERING

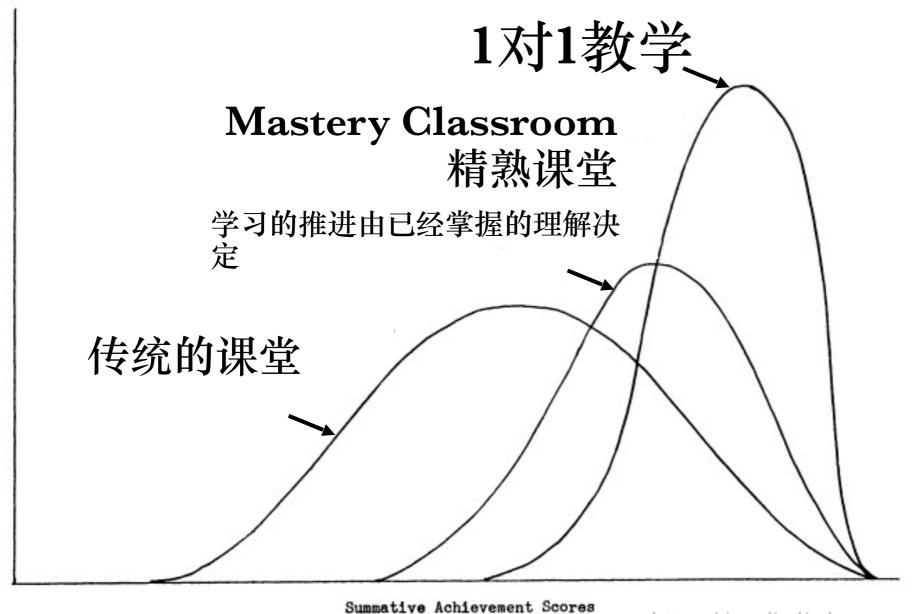
#### active learning - WIRED

www.wired.com

Think back to when you learned how to ride a bike. You probably didn't master this skill by listening to a series of riveting lectures on bike riding. Instead, you ...



FIGURE 1. Achievement distribution for students under conventional, mastery learning, and tutorial instruction.



\*Teacher-student ratio

https://media.licdn.com

# 2 Sigma Problem

B. Bloom

布鲁姆总结: 1对 1教学是最有效的 教学方式,然而 在传统课堂里这 是基本上没有可 能实现的。

SDL Results at IICS

# Attention Drives Learning 专注力推动学习

# Emotions Drive Attention 情感推动专注力

#### Attention is critical.

Getting it and keeping it, when the average attention span is 5 seconds.

# Generating insights takes time.

Learning is a journey. People need time and opportunities to make their own meaning.

AGES AGES

#### Emotions govern.

The stronger we feel the right emotions, the more we learn.

Source: "Your Brain on Learning". CLO Magazine, Apr-2015, quoting research from NYU

#### **Spaced learning sticks**

Longer term recall is best when we learn over several sittings.



Each learner is a unique learner 每一个学习者都不一样

conventional education rewards fast learners and disadvantages others. Research suggests slower learners can be deeper learners. T. Rose

传统的教育服务于学习快的学生, 研究表明学习 慢的人可以学得更深。 T. Rose



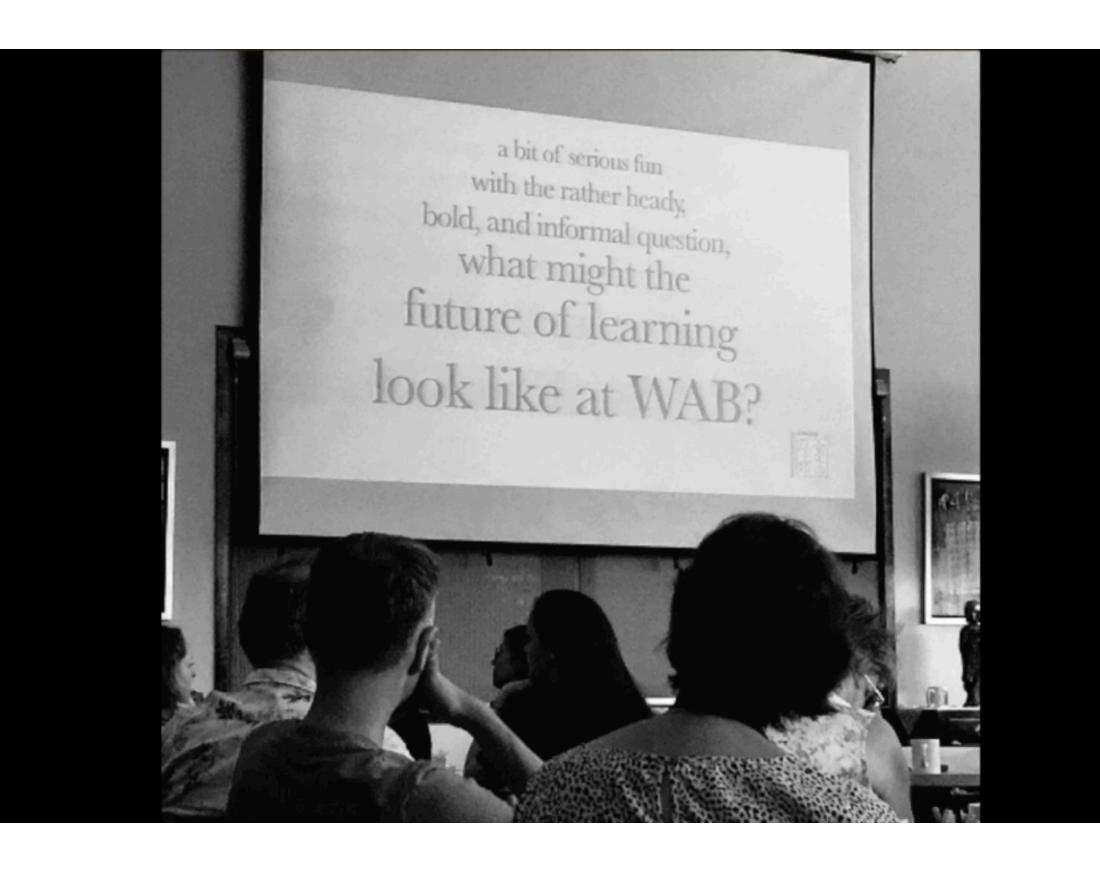
## 家长代表培训: Level 2

What is Flow21 and How is it developed? 什么是FLoW21 a和它是如何开展的?

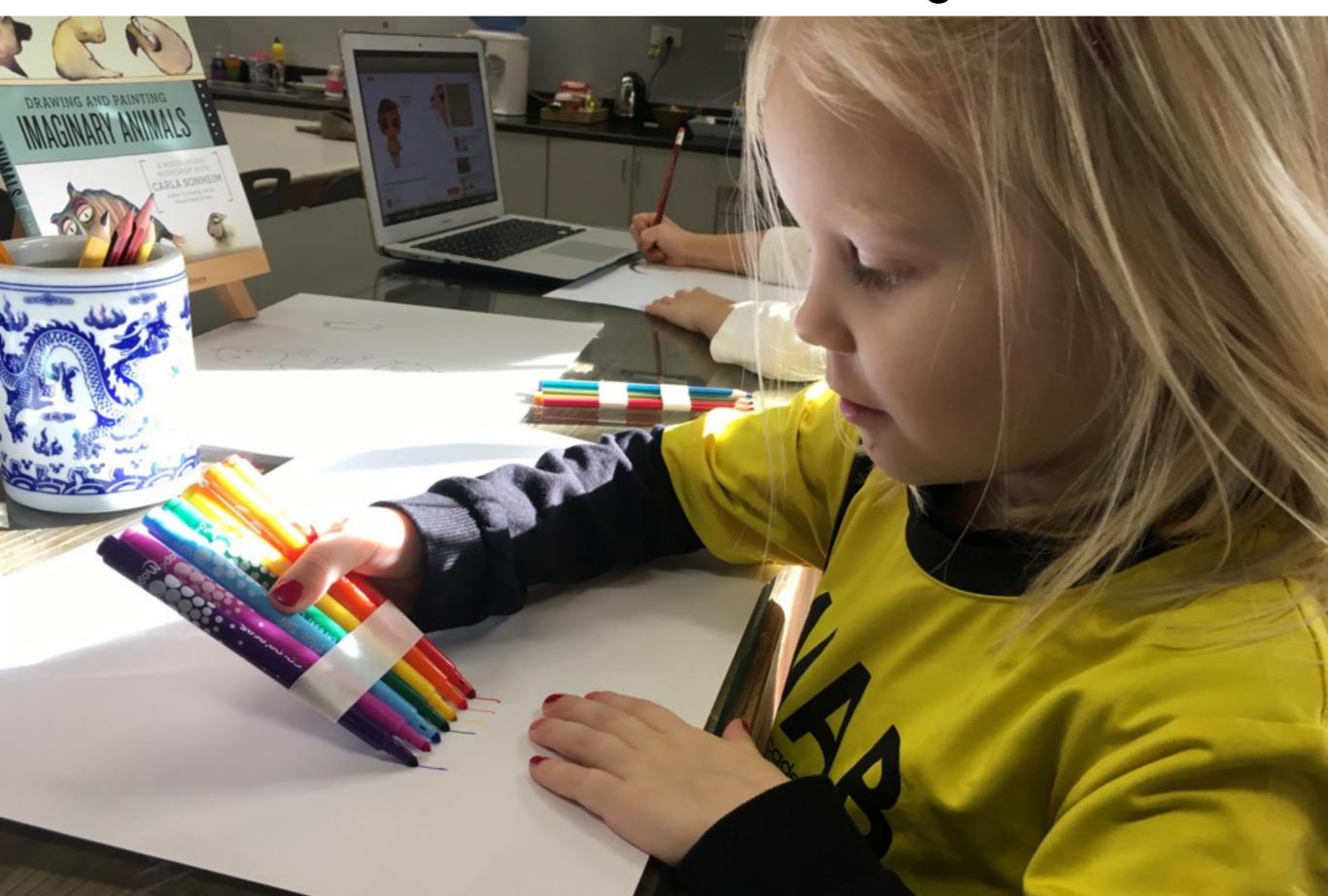
6 understandings of what and how 关于什么和如何的6大理解

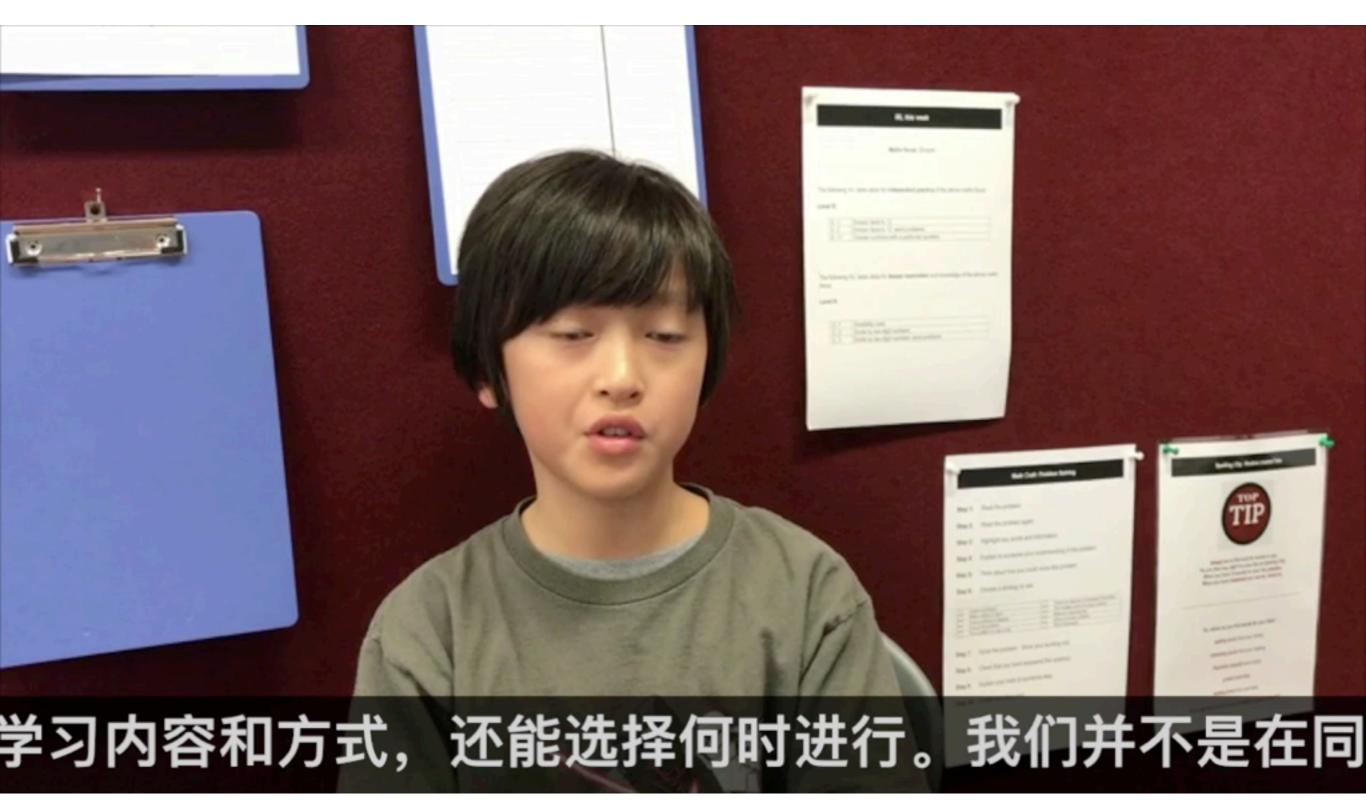


- 1.How did Flow21 get started and what happened last year? Flow21 是如何开始的,去年发生了什么?
- 2.what is the educational ecosystem? 教育生态系统
- 3.what is the committee, working group, individual actions structure? 委员会,工作小组,个人行动的结构
- 4.what is the vision, our targets, and fiats? 我们的愿景,目标和行动 计划
- 5.what is the logic behind the change management?变动管理的原理
- 6.what has been accomplished this year?我们今年的成就



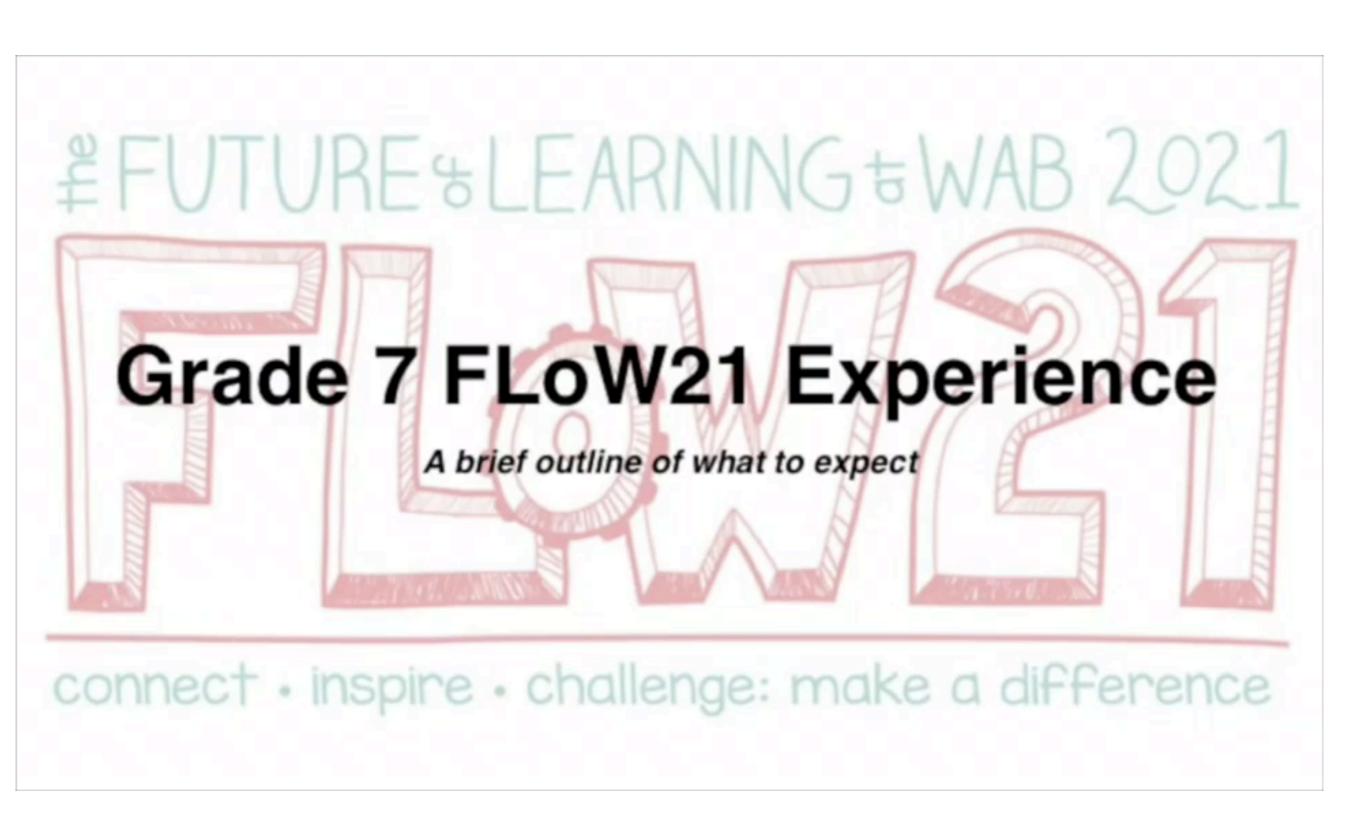
# ES: self-directed learning





WAB's Grade 5 students 5年级学生

## 7年级的学习体验



## 高中11年级: 生物和心理课

joint inter-disciplinary unit. Students co-constructed the content and assessment rubric of their product. Teachers assessed the overall process and learning using broad IB grade boundary descriptors. **跨学科单元**: 师生一起设计单元内容和评估标准。老师使用IB总的评估要求测评学生的学习过程和成果。





Founded in 1885



NEASC 评审团审查各个学习原则之间的延续性和4个C的证据:



#### NEASC 评审团审查各个学习原则之间的延续性和4个C的证据:

- Conceptual understanding of learning 对学习的概念性的理解
- Commitment to the transformational process 致力于学习的转变过程
- Capacity for change 改变的可能性
- Competence to achieve it 实现的能力

Founded in 1885





- Robert Harrison
   Nov 2016 PD Day
- Standards and Practice
   IB的标准和实施要求
   72 reduced to 42?
- Continuum Evaluation
   连贯一体的评审
   compliance to cohesions
- Communication 沟通 WAB is working with the IBO
- ATLs学习方法 measured and reported
- Learner Agency 学习者的主观能动性...

# other awesome

# a few Things we're doing Here & now!

our critical reflections our cognitive conflicts our constant learning our irrepressible courage



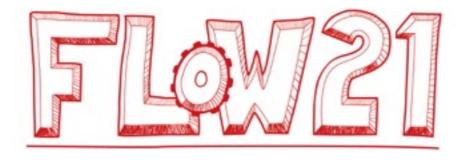


# 其它激动人心的事情

我们批判性的反思我们的认知的分别

我们不断的学习我们法抑制的勇气





# FLoW21 Parent Link Committee 家长代表



http://cdn.content.compendiumblog.com/



Ambassadors 家长代表



http://pas-wordpress-media.s3.amazonaws.com/

# 家长代表的培训























# Three key understandings 3个重大理解

- 1. Self-directed learning is not self-determined learning. 自主学习不是自定学习
- 2. FLoW21 is process of ensuring each learner is engaged appropriately in rigorous and high-quality learning. FLoW21 是一个过程,确保每一个学生都积极参与到有强度的和高质量的学习
- 3. WAB is continuously optimizing students' learning for on-going improvement.
  WAB致力于加强最优化的学生学习

## integrated Educational 1.curriculum Ecosystem

- 2.teaching & instruction
- 3.assessment & Reporting
- 4. Professional learning
- 5.system technology
- 6.schedules & Timetables
- 7. Learner scaffolds
- 8. Host country engagement
- 9.Learning spaces



## 1.课程 整合的教育生态系统

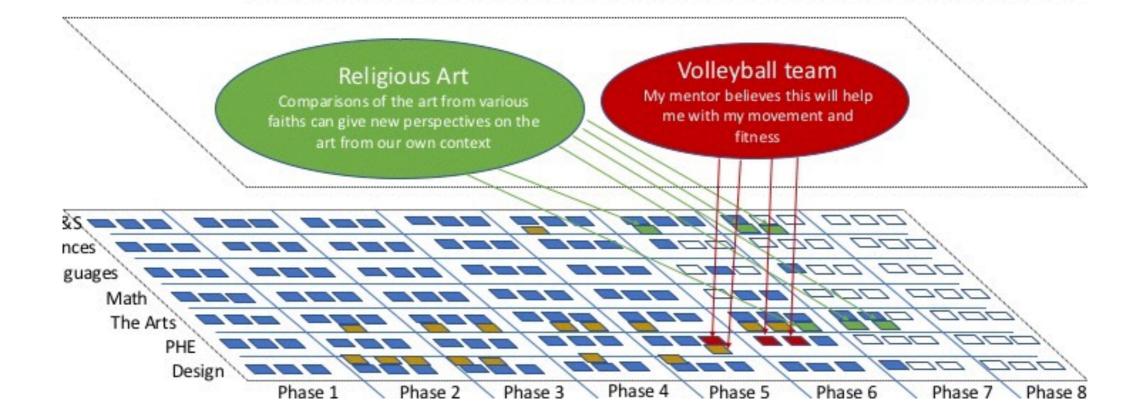
- 2. 教学
- 3.评估和成绩
- 4.教师培训
- 5.系统科技
- 6. 课表
- 7.学习支持
- 8.东道国学习
- 9.学习空间设计



#### 课程

#### 委员会

#### Others experiences are more mentor-directed ("Join a team!")





## 评估和成绩

# 委员会 今年的目标

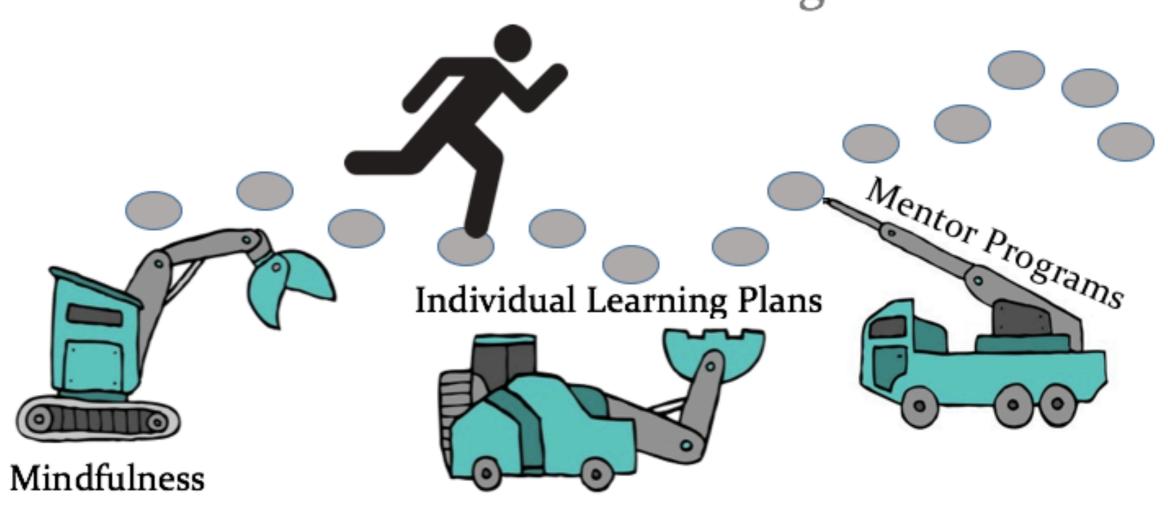
- 评估 决定支持基于能力的课程设计的评估方式。
   式。这也包括了及时的、真实的反馈。
- 成绩 制定公开的、持续性的报告学生全面发展和进步的指导和规定



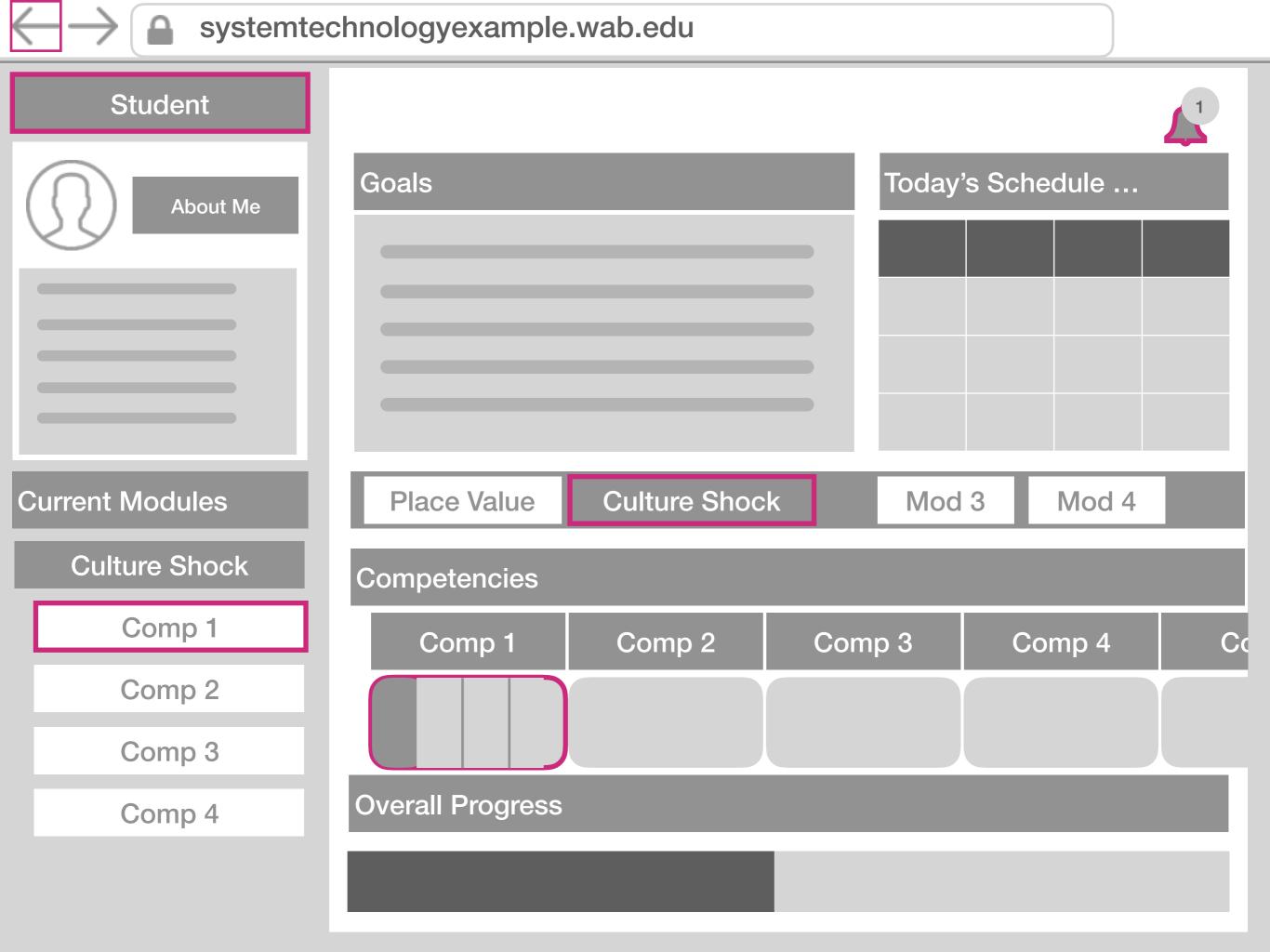
## 学习支持

#### 委员会

#### Self-Directed Learning







#### 课表

#### 委员会

#### 今年的目标:

我们将研究和选择能够满足个体学生需求的不同的课表模型





## 学习空间

#### 委员会





## 东道国学习

委员会

今年的目标:

1.WAB 社区交流和学习

2.本地学校交流和学习



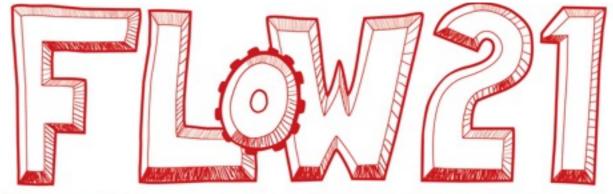
## 教师培训

# 委员会 今年的目标

- 1.Coaching and Mentoring 辅导和指导
- 2.Supervision & Evaluation 监督和评价
- 3.WAB Lab Professional Development WAB研究室 教师培训





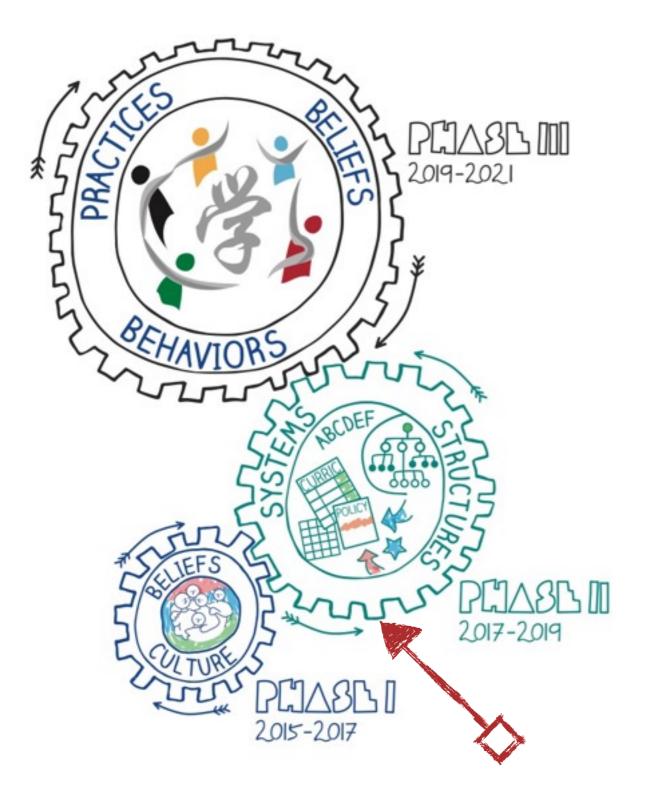


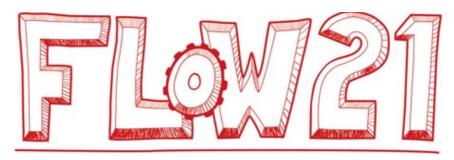
To meet the learning and developmental needs of every student in our community.

满足我们社区里的每一个学习者的学习和发展需求

to more perfectly realize our mission and core values. 更加完美地实现我们的愿景

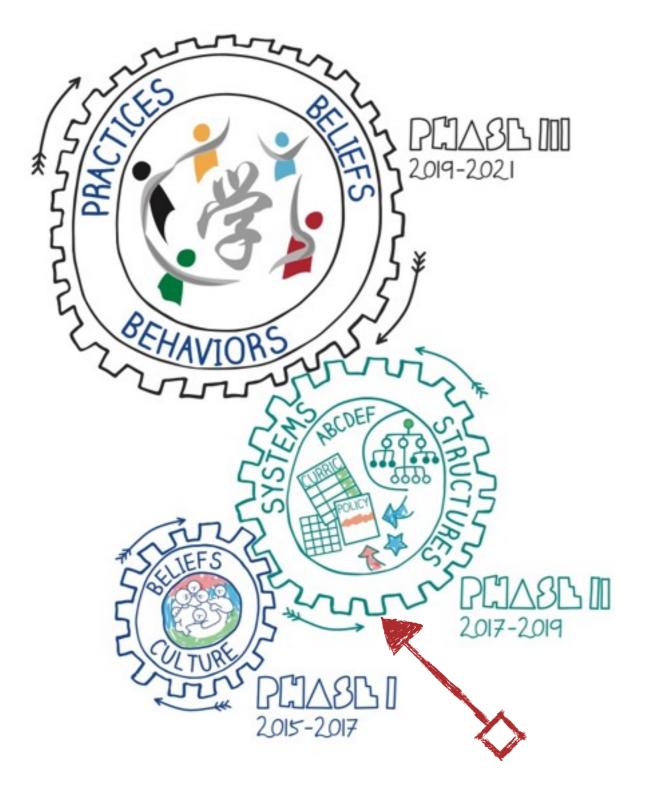
和核心价值

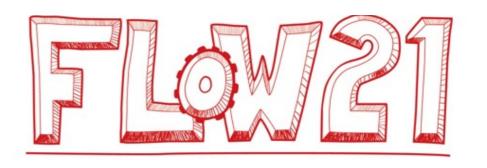




Grounded in two years of thinking, learning, discussions, and practice, the steering committee was ready to set down foundational pieces for the future of learning at WAB. 基于两年的思考、学习、 讨论和练习,指导委员会 已经为京西未来学习的发 展奠定了坚实的基础。

我们在这: SYSTEMS & sTRUCTURES

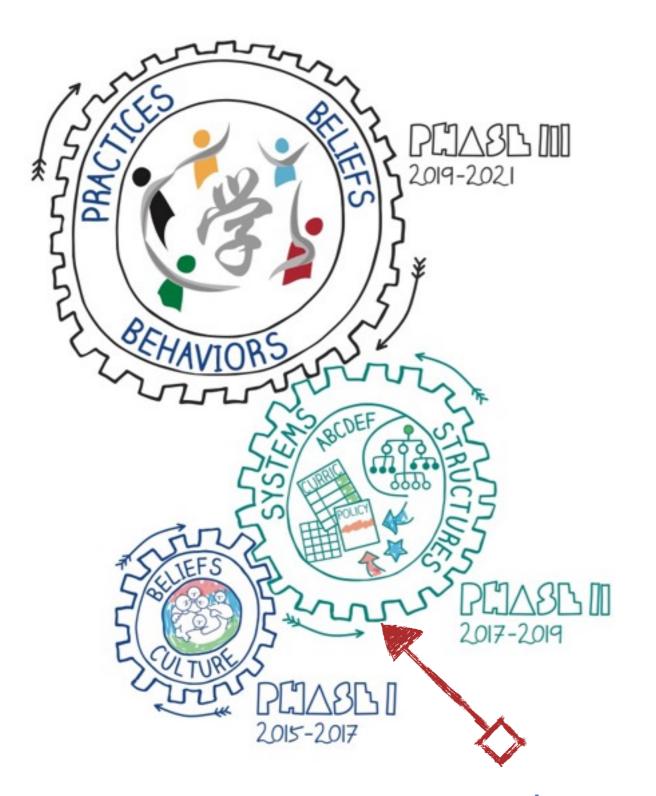


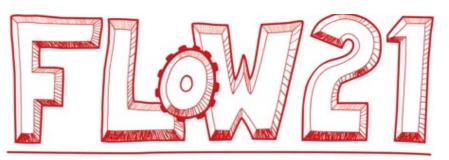


Today we are going to share decisions made about system and structural pieces WAB is committing to developing.

今天我们与您分享京西将致 力于发展的与系统和结构相 关的重大决策

我们在这: SYSTEMS & sTRUCTURES

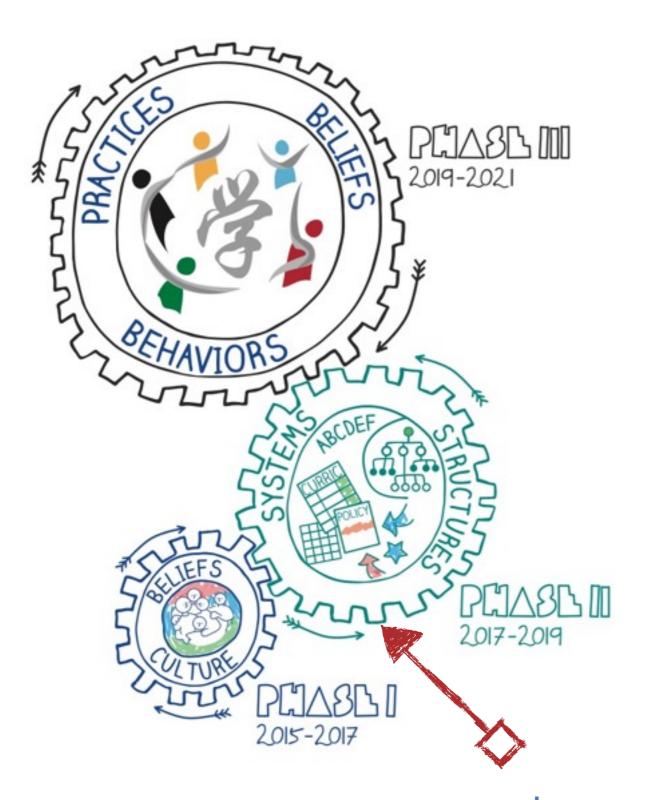


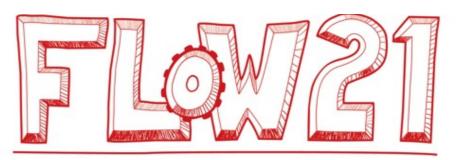


we have already begun designing and in some case building the systems and structure we need.

我们已经开始思考、设计甚至在有些领域已经开始搭建 满足我们需要的系统和结构了。

we are here: SYSTEMS & sTRUCTURES





Next year will be more purposeful and deliberate about the iterative design, development, implementation, and improvement of our systems and structures. 明年我们将会更加有目的地、 深思熟虑地反复迭代设计、 发展、进行和改进我们的系 统和结构。

we are here: SYSTEMS & sTRUCTURES



#### flow21 steering committee congress 2018

# FLoW21 Steering Committee Congress

WAB's definition of Learning: Learning at WAB is a transformative process which is intentional and iterative, challenging and joyful, and serves an authentic purpose.

京西对学习的定义:京西学习是一个转变过程,是有意的和反复的,具有挑战性的和快乐的,并且具有真实性的目的。

A Progress Mentor program will be developed, homerooms will evolve into mentorship teams 进度导师项目将展开,班级将演变成导师团队。

Architects will visit wab in May to propose the redesign of all our learning spaces - shifting to learning communities 每个学生从入学开始都会有个人资料,包括学术,社交,情感。

Architects will visit wab in May to propose the redesign of all our learning spaces - shifting to learning communities 选定的建筑师将于五月份参观京西,提交所有学习空间的重新设计方案,辅助学习社区的形成

All positions of responsibility (i.e. grade level leaders, heads of department, coords) will be Key FLoW21 leaders 所有的中层领导(例如:年级组长,部门负责人,协调员等)将成为FLOW21的核心领导人

ASAs/WABX/WAB Wild -The continuation of these programs is assured. Structures will change to foster explicit and authentic connections to curriculum.

课外活动和户外教学部门继续存在。其结构将会有所改变,从而更好地与课程有明确和真实有意义的联系。

Reporting will shift to regular updates on student progress across all academic, social, and emotional measures

学生报告单将转向定期更新学生在所有学术,社交和情感方面的进展。

Students will progress when they've demonstrated the skills, knowledge, and understanding needed to be successful at the next phases of their learning. (mastery learning)

学生在一旦获得并且展示他们可以进行下一阶段学习的技能、知识和理解的时候就可以进阶。

Our written, taught, and assessed curriculum will be organized into that which is required and/or negotiable

我们的书面、教学和评估课程将会划分成必修的和可协商的。

Developmentally phased "Learning Experiences" (LE) will be how students access curriculum. Each LE will include a collection of learning engagements allowing students to demonstrate required skills, knowledge, & understandings

适合学生发展的"学习体验"将会是关于学生如何获取学习课程。所有的学习体验都会包括让学生充分展示技能、知识和理解的学习环节。

## 问答环节

Can FLoW scheduling system guarantee that every student can sign up for the classes he/she plans to attend?

FLoW的课表安排能够确保每一个学生都能选上自己希望上的课吗?

As observed during G7 March trail, many students didn't use their "collaborative study time" for learning, they used it as social time instead. How can teachers have better control and better guidance over students?

据我们观察7年级的学习体验,很多学生在"合作学习时间"的时候 没有在学习,而是用于社交时间了。老师们可以如何更好地监督 和指导学生呢? How to train teachers to be FLoW competent? 如何培养能够胜任FLoW的老师?

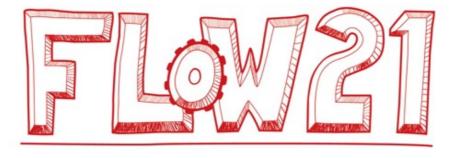
Some subjects may not be suitable to learn in FLoW way. Fundamental subjects, like Math and English should be taught systematically.

有些课可能不适合以FLoW的形式学习。一些基础课程,如数学和英语应该有系统地教学。

Will school introduce frequent and accurate assessment system to closely monitor students' progress in personalized learning? 学校将会引进频繁并且准确的评估系统来密切追踪每一个学生的个性化学习进度?

At current stage, it might be more appropriate to give students and their parents an option to choose between FLoW and the traditional way.

现阶段,如果学生和家长有机会可以选择FLoW或者传统的学习方式可能会更好。



## 家长代表培训



http://pas-wordpress-media.s3.amazonaws.com/

Keep an eye out for future Ambassador Trainings

#### Thank you for being involved!

#### FUTURE&LEARNING&WAB 2021



connect · inspire · challenge: make a difference

