

International Arab Baccalaureate

A paradigm shift in secondary education for distinguished achievement in higher education and success in life

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Who are we?



Educational Research Center (ERC) - Lebanon:

Research-based, high-quality education to empower students for success in modern life

- Curriculum development
- Educational materials and resource development
- Electronic platforms and resources
- Authentic assessment / High-stake exams
- Professional development

Under contract or

Own initiatives (IAB)



How do we run IAB?



International Arab Baccalaureate:

- School-based program, Grades 10-12 / K-12
- School accreditation & continuous monitoring
- Deployed with existing curricula for enrichment & to bring harmony within diversity
- Special attention to the 2 most critical pillars of educational reform: Teachers & Assessment
- Governed by 2 boards:
 - ❖ Board of Trustees (International & Arab)
 - ❖ Academic Board (ERC)

What is IAB about?



A comprehensive educational initiative:

Grounded in *Profile Shaping Education* (PSE):

- **Empower students for success in life**
- **Meaningful understanding of course materials**
- **Distinguished achievement on various assessments**
- **7 Core fields (math, physics, chemistry, biology, geography, Arabic, English/French)**
+ Optional fields
- **2 different levels of assessment in each field**
>O-level & >A-level

Distinguished achievement



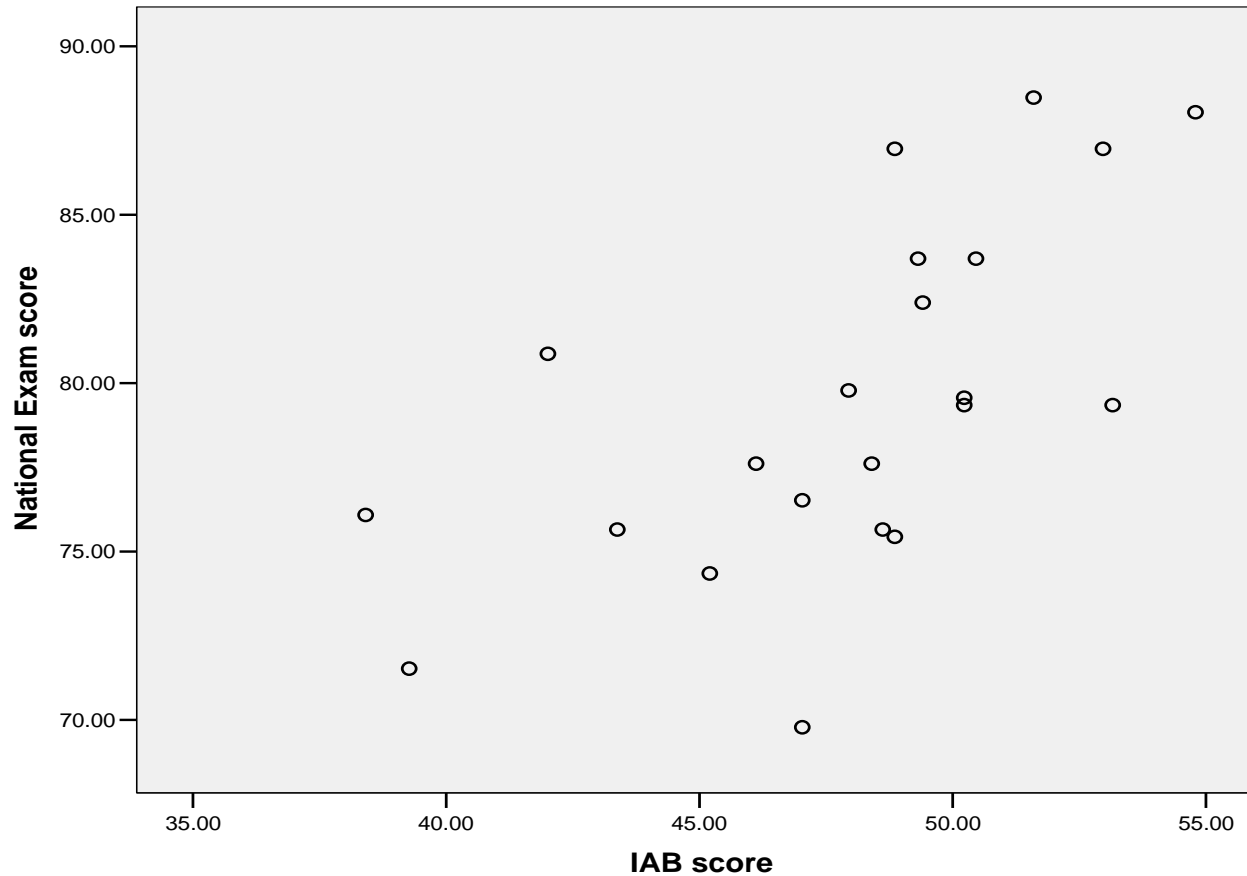
IAB 2010 Pilot:

- Teachers at a participating school changed practice:
5 of their students ranked, for the first time in the school history, among top 10 on national exams
- Correlation, in another country, between IAB and national exit exams:
 - ❖ Between .60 and .80 in individual fields
 - ❖ .63 on cumulative scores in all fields

Distinguished test performance



IAB 2010 Pilot:



Profile Shaping Education (PSE) IAB

Novel *research-based* pedagogy developed at ERC:

- Education to empower students for success in modern life (⊃ higher education and workplace)
- Big picture within and across disciplines: Depth-breadth balance / *Less is more* in episteme (content)
- Critical Habits of Mind: Skills & Dispositions
- Mediated, experiential learning
- Assessment (formative & summative) not an end by itself, but means to a worthy end:

21st Century Profile

Student Profile

IAB

IAB is the Game

PSE is the Name

Productive

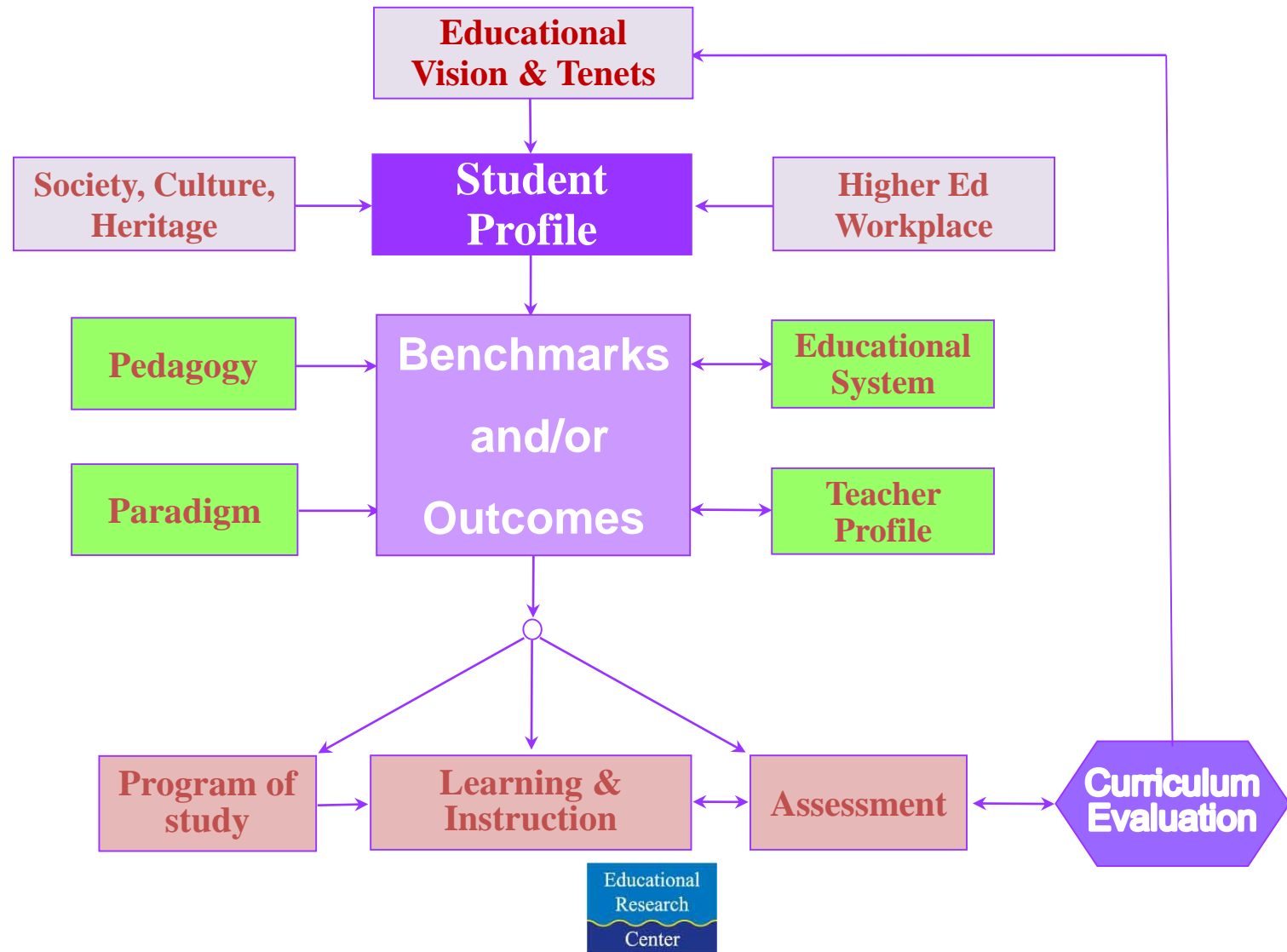
Proactive

Educational
Research
Center

Paradigmatic

Principled

PSE Framework



Authentic assessment



Assessment-guided learning & instruction:

- “For” meaningful learning, not “of” (rote) learning
- Based on novel taxonomy of epistemic and cognitive learning outcomes
- Using a uniform mix of ERC and teacher chosen/built assessments
- To resolve the passing-learning paradox
- For insightful student judgment
- For informed educational policy

IAB assessments



Consistency across fields, grades, schools & countries:

- **Uniformity of design and deployment of items and assessments**
- **Assessment rubrics for consistent marking and timely feedback**
- **Common scale calibration & leveling criteria**

Continuous assessment:

- **Monitoring individual students' profile history**
- **Monitoring every item**
- **Relief from exit exams nightmare**

Profile translation into outcomes



Scope:

- Matching local and international curricula
- Patterns
- Systems
- Taxonomy of epistemic and cognitive learning outcomes

Sequence:

- G10 → G11 → G12: School-based
- Common G10-12 package of epistemic & cognitive outcomes

Epistemic taxonomy



System: Bohr's model of the atom		Benchmarks \Rightarrow Learning Outcomes
Scope	Domain	Hydrogen atom and hydrogen-like (or hydrogenic) ions.
	Function	Description and explanation of certain, but not other, aspects of a single electron bound on a circular orbit.
Structure	Composition	A nucleus with one (hydrogen) proton or more (hydrogenic ions), and a single electron. Properties of interest include mass and charge of these entities, and state properties of the electron (e.g. velocity).
	Internal Structure	Interaction between the nucleus and the electron partially represented by a central (binding) Coulomb force exerted by the proton(s) in the nucleus on the electron.
	External Structure	Interaction between the atom in question and other neighboring atoms (molecular structure), or other types of environment (e.g., electromagnetic field).

Cognitive taxonomy



Habits of Mind

Skills / processes:

- Analysis
- Critical reasoning
- Relational reasoning
- Critical reasoning
- Logical reasoning
- Communication dexterity
- Technological dexterity

Dispositions:

- Affects
- Attitudes
- Morals
- Ethics
- Values
- Beliefs

Scope P

Scope E

Outcomes development



Engagement:

- **Core-engagement**
Within fields of study
- **Eco-engagement**
With others & environment, at school & outside
- **Meta-engagement**
Self-management & learning how to learn

Cognitive hierarchy



1. Initiation / Early awareness:

Know that a system (physical or conceptual) exists, but know nothing about it, and cannot use it

2. Gestation / Recognition:

Partially know the scope and structure of the system, and use it in limited, familiar situations (*individual HoM's*)

3. Replication / Comprehension:

Know the scope and structure of the system, and use it in familiar or similar situations (*HoM & Engagement*)

4. Innovation / Understanding:

Know the scope and structure of the system, and creatively use it in novel situations

Item map:

- Grade & field
- System
- Outcome
- Content specifications
- Format specifications



Item / Task

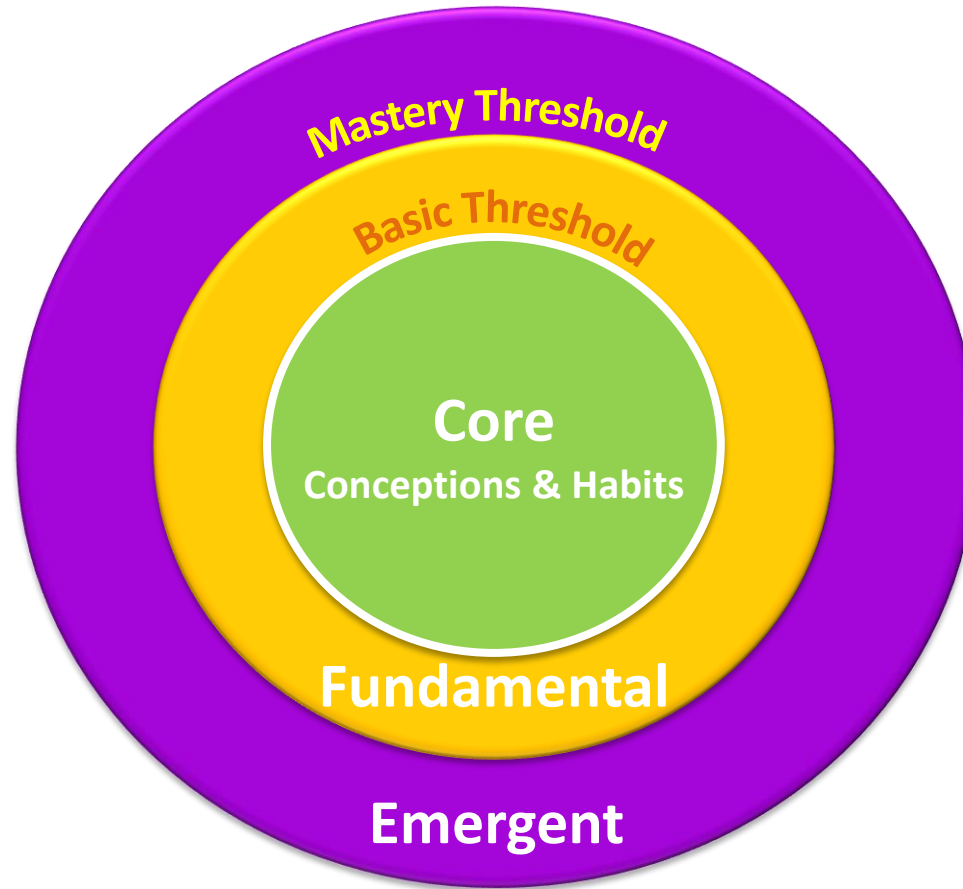
Rubric:

- Rating/cognitive hierarchy & Source of error
- Feedback

Assessment levels



www.EducationalRC.org/IAB

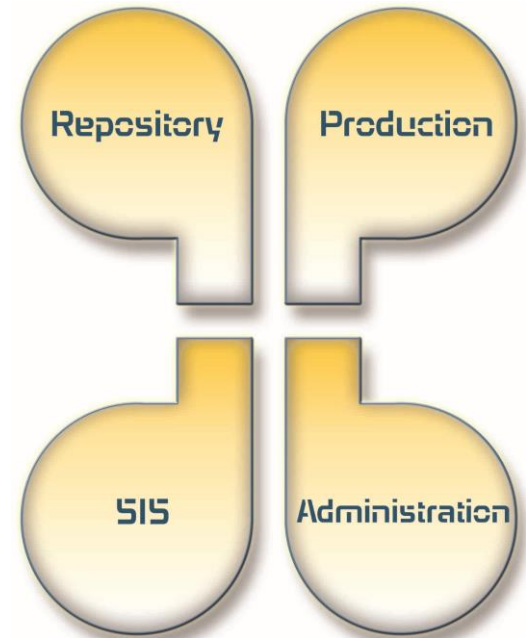


IAB e-platform

IAB

More than an item bank:

- Robust but user-friendly, flexible engine & content
- Various forms and types of assessment
- On-line, on-demand, on-paper
- Continuous monitoring & processing of all stakeholders' data
- Respects ITC standards and others'



IAB deployment



- **Rigorous but not elitist requirements to ensure success**
- **Gradual implementation & capacity building**
- **Support system:**
 - ❖ **Workshops & Conferences (local & regional)**
 - ❖ **Help Desk & Online Interaction**
 - ❖ **School visits**
- **Stringent quality deployment:**
 - ❖ **Internally: IAB team, operations, products (items, etc.)**
 - ❖ **Externally: Classroom implementation, assessment administration and grading, data exchange...**
- **Partnership / Ownership Spirit / Cooperation**

IAB deployment schedule



Academic Year	Action	Grades	Schools
2008 – 2009	Pilot of Exit Exam	12	Selected schools
2009 – 2010	Pilot of Summative Exams e-platform R&D	10, 11, 12	Selected schools
2010 – 2011	Formal implementation	10	Accredited schools
	Pilot	11, 12	Selected schools
2011 – 2012	Formal implementation	10, 11	Accredited schools
	Pilot	12	Selected schools
2012 – 2013	Formal implementation First IAB Diplomas	10, 11, 12	Accredited schools

Shaping the Future of Education!



Quality Education for
Student License
to the Future

3rd Annual Conference of ERC

*Educational Measurement
for Continuous
Professional Development*

March 26 & 27, 2011

Lebanon

www.EducationalRC.org



THANK YOU

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