

Technical Assistance in the Statistical Analysis of the Performance of Trinidad & Tobago in the PIRLS, PISA, CXC, & National Tests, with specific reference to Lessons Learned & Policy Implications:

Report 2: Benchmarking Selected Policy Areas

Jerome De Lisle, School of Education, UWI, St. Augustine © 2016

Evidence
informed
Policymaking

Teacher
Preparation
& Education

Student
Assessment
System

Violence,
Indiscipline
& School
Safety

**Policy Areas
Benchmarked**

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graph TD; A[Evidence informed Policymaking] --> E((Policy Areas Benchmarked)); B[Teacher Preparation & Education] --> E; C[Student Assessment System] --> E; D[Violence, Indiscipline & School Safety] --> E;
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Local Policy Analysis

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graph TD; A[Local Policy Analysis] --> B[Identify Comparator Countries]; B --> C[Describe Best Practice/ Theory/ Criteria]; C --> D[Identify Policy Lessons]; D --> E[Develop Model Based on best Practice];
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Identify Comparator Countries

Describe Best Practice/ Theory/ Criteria

Identify Policy Lessons

Develop Model Based on best Practice

The Quest (~~to be~~ World Class)?

- To be a **high performing, equitable school system** (Combining Excellence with Equity or Quality and Equality).
- Education system quality suggests effectiveness, efficiency, equality, relevance, and sustainability. Equity is both inclusion and fairness.
- There are multiple pathways to achieving this goal and competitive intelligence will help decision-making quality.

What is Benchmarking in Education?

- Benchmarking is an educational policy strategy that involves comparing systems, processes, and performance of different countries/ education systems from varying social and economic contexts in an attempt to gather decision-making insight and competitive intelligence.

Eight Benchmarking Steps

- 1) identify the strategic intent or process to be benchmarked
- 2) identify performance variables or criteria
- 3) select comparator countries
- 4) collect data on policies and practices
- 5) make explicit comparison and identifying gaps
- 6) specify actions to meet and surpass
- 7) implement and monitor
- 8) recalibrate.

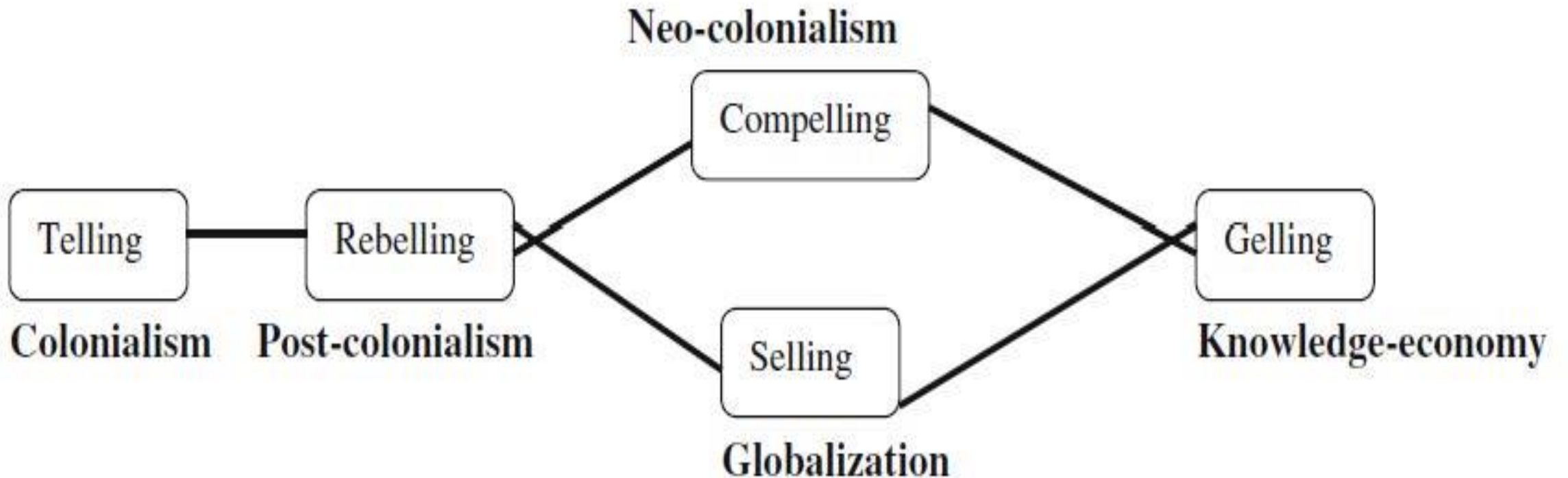
Types of benchmarking

- **Competitive benchmarking –**
 - Direct competitors (Other Caribbean Countries/Latin America and the Caribbean Region)
- **Functional, process, and generic benchmarking**
 - Specific processes or structures of top performers (May involve looking at best practice)
- **Strategic Benchmarking**
 - Strategic decision and directions

Why benchmark?

- Achieves **competitive intelligence** - insight gathered from defining, gathering and analyzing information on systems.
- Insight is gathered on key questions, critical processes, and performance measures.
- Benchmarking can change the way countries of the global South “do” policy. Using benchmarking information these countries can create new knowledge and craft contextualized policy.

How benchmarking can advance policy in Trinidad and Tobago



Gelling implies that global and local policy issues are balanced as the State constructs policy in response to benchmarking.

Unique advantage of international benchmarking

- “In the dark, all institutions and education systems look the same. It is comparative benchmarking that sheds light on the differences on which reform efforts can then capitalize”.

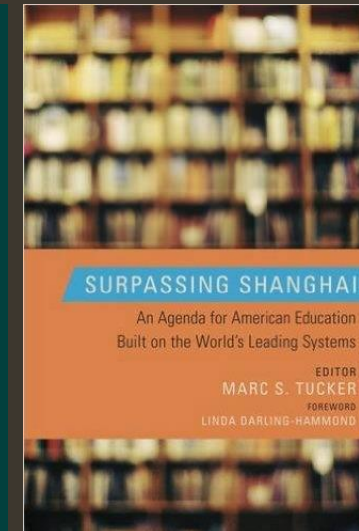
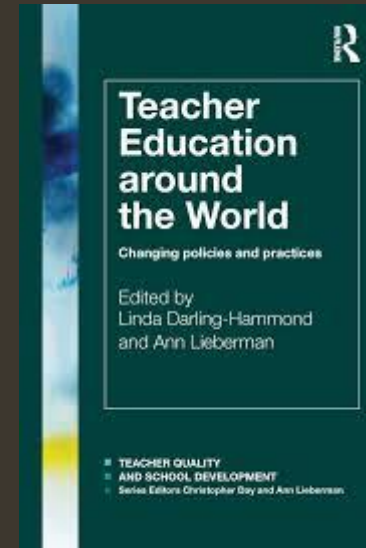
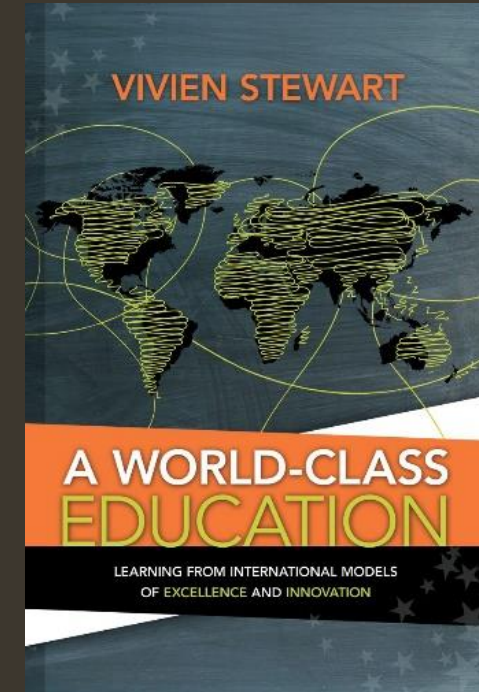


Andreas Schleicher, OECD
Education Directorate

Misunderstandings/ Criticisms of benchmarking in education

- Benchmarking is not just a comparison of countries using League Tables
- Benchmarking is not about promoting or adopting one country's processes blindly (as in those who promote the Finnish approach)
- Benchmarking will not lead to convergence of the World's education system because top performers are remarkably diverse.

Popularity of benchmarking in education



Best Use & Caution

- Benchmarking data may be used to expand policy options and better understand the complexity of an issue.
- Evidence will not be directly policy ready, but must be refined to take into account context.
- Good examples of such practice are SBA in Hong Kong (recalibrate), Peri-Ha in Singapore (implement and monitor), and Direct Entry at 11+ in Singapore.
- It is also advisable to consider that the examined policy may not be the factor in high performance

Developing a Benchmarking System

- The system employed for the Trinidad and Tobago consultancy builds and refines earlier work using PISA and PIRLS data.
- Protocol
 - A pool of 25 comparator countries are selected based on system performance (equity and quality), geographic location, and cultural and education system contexts.
 - Seven policy areas important in the local and global context were identified.
 - Different benchmarking types were employed.

Pool of 25 comparator countries

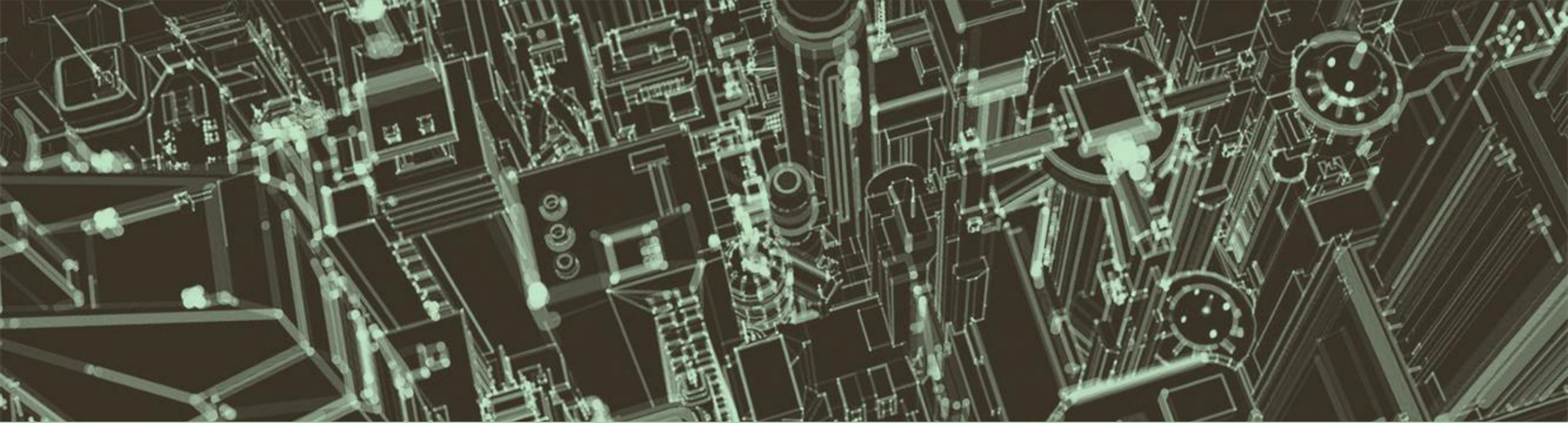
Performance	Location	Culture	Differen- tiation	Classification	Nation/Economy/ Region
Low	Caribbean	Anglo-Caribbean	High	Target Nation	Trinidad & Tobago
High	North America	Anglo	Low	High Performing Non-Differentiated	Canada, BC
High	Europe	Nordic	Low		Sweden
High	Europe	Nordic	Low		Finland
High	North America	Anglo	Low		USA
High	Europe	Eastern Europe	Low		Poland
High	Europe	Nordic	Low	Low Performing Non-Differentiated	Iceland
High	Europe	Nordic	Low		Norway
High	Europe	Anglo	High		England
High	Europe	Germanic Europe	High		Germany
High	Europe	Germanic Europe	High	High Performing Differentiated	Netherlands
High	Europe	Germanic Europe	High		Belgium (French)
High	Europe	Eastern Europe	High		Slovak Republic
Low	Asia	Arab	High	Oil Based Economies	Qatar
Low	Asia	Arab	High		Iran
Low	Asia	Confucian Asia	High	High Performing Asian	Singapore
Low	Asia	Confucian Asia	High		Hong Kong
Low	Asia	South Asia	High	Low Performing Asian	Indonesia
Low	South America	Latin America	High		Argentina
Low	South America	Latin America	High	Latin American Economies	Brazil
Low	South America	Latin America	High		Chile
Low	South America	Latin America	High		Mexico
Low	South America	Latin America	High		Panama
Low	South America	Latin America	High		Peru
Low	South America	Latin America	High		Uruguay
Low	South America	Latin America	High		

Selected Policy Areas

Policy Area	Rationale
Student assessment system	Benchmarking study by World Bank. Significant area for reform globally and locally.
Teacher preparation and education programmes	New theory on professional capital suggests that this might be a primary lever for success.
Policy-making and use of evidence	Increased attention in several high performing systems and in Trinidad and Tobago
Violence and indiscipline	Important issue in Trinidad and Tobago in recent past.
Pedagogy, instruction, and learning	New area for reform and futuristic policies identified by OECD. Failed SEMP reform for TALS.
Inclusion and special education	Considerable local concern over past two decades. Several failures noted.
Governance, leadership, and institutional development	Local concern, significant investment in past reforms. Some reforms have stalled or failed.

Policy Area or Sub-System	Focal Area	Rationale	Types of Benchmarking
Student assessment systems	Entire subsystem	World Bank Focus in SABER Global trend	Process/Generic & Competitive
Teacher Preparation Programs	Entire Subsystem	Key component of system quality	Process/Generic
Policy-Making & Use of Research and Evidence	❑ Policy-Making	System indicator	Strategy
	❑ Knowledge Mobilization	Important global strategy aligned to evidence-informed policy-making	Process/Generic
Violence, indiscipline and school safety	School-Based Violence reduction and prevention programmes	Local system issue	Best Practices
Governance, etc.	Entire Subsystem	Important Strategic component in all countries	Best Practices
Pedagogy, Instruction, & Learning	❑ Data use	Global trend	Process/Generic
	❑ Innovative and Effective Strategies	Important in what works	Best Practices
Inclusion and special education	Entire sub-system	Local reforms have not proven effective	Process/Generic

Policy Area or Sub-System	Focal Area						
Student assessment systems	Entire subsystem	Singapore	Hong Kong	Ontario	England	Chile	Brazil
Teacher Preparation Programs	Entire Subsystem	Singapore	Hong Kong	Netherlands	England/UK	Finland	
Policy-Making & Use of Research and Evidence	Policy Making	Singapore	Ontario	England			
	Knowledge Mobilization						
	Violence, indiscipline and school safety	Violence reduction and prevention programmes			*		
Pedagogy, Instruction, & Learning	Data use	Netherlands	Belgium (Flanders)	Ontario	England	US	
	Innovative and Effective Strategies						
Inclusion and Special Education	Entire subsystem	Sweden	Finland	Ontario	England	US	
Governance, etc.	Entire Subsystem						

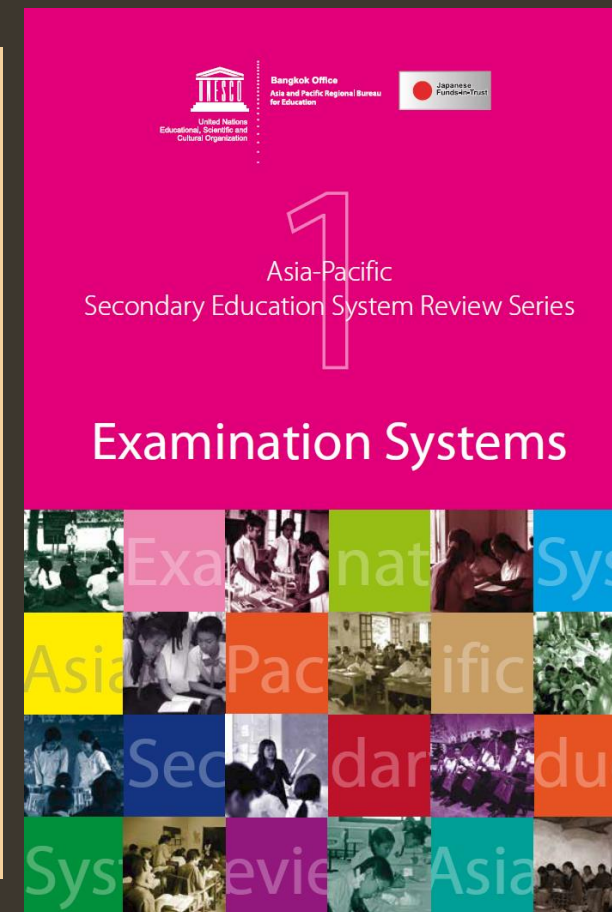
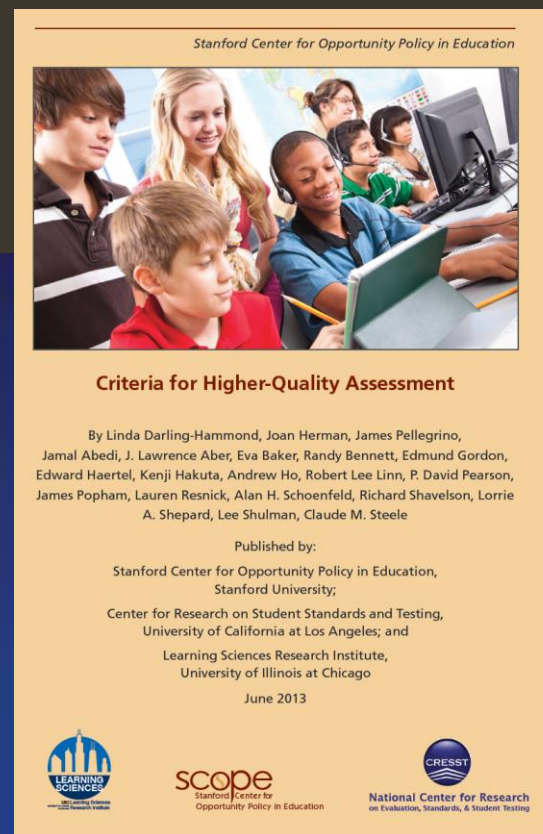
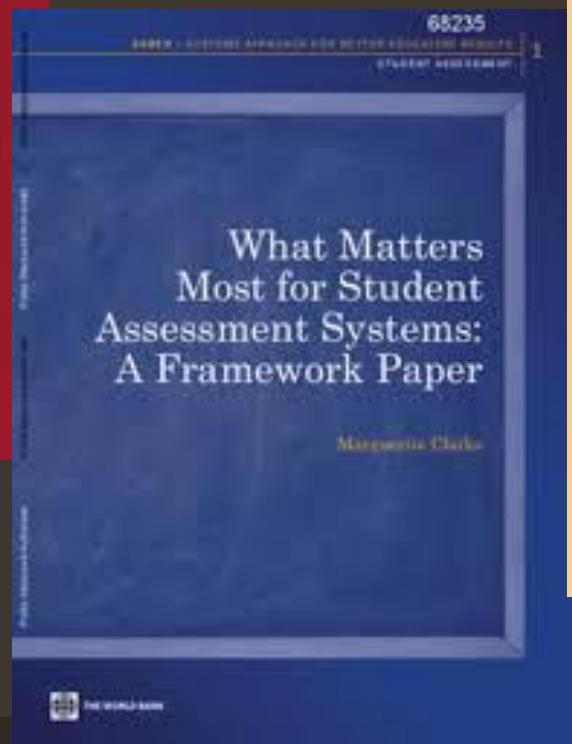
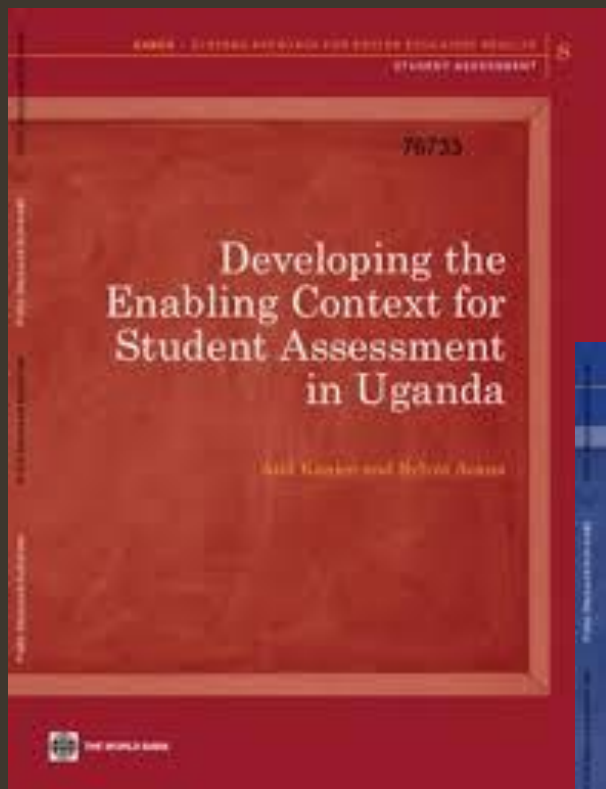


Benchmarking the Student Assessment System

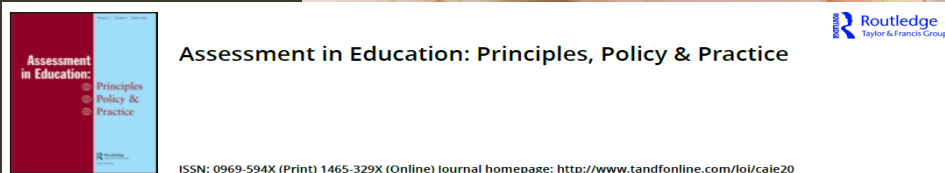
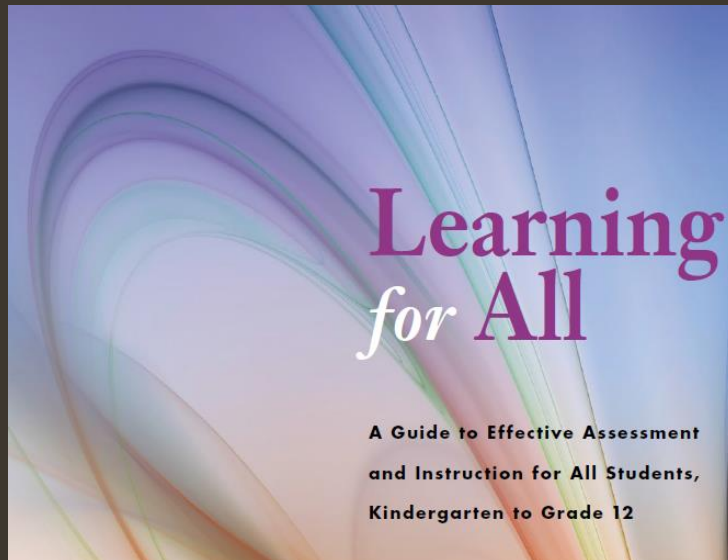
Policy Area 1



Benchmarking Reviews Already Available



Further Review Country Specific Policy Documents, & Research Publications

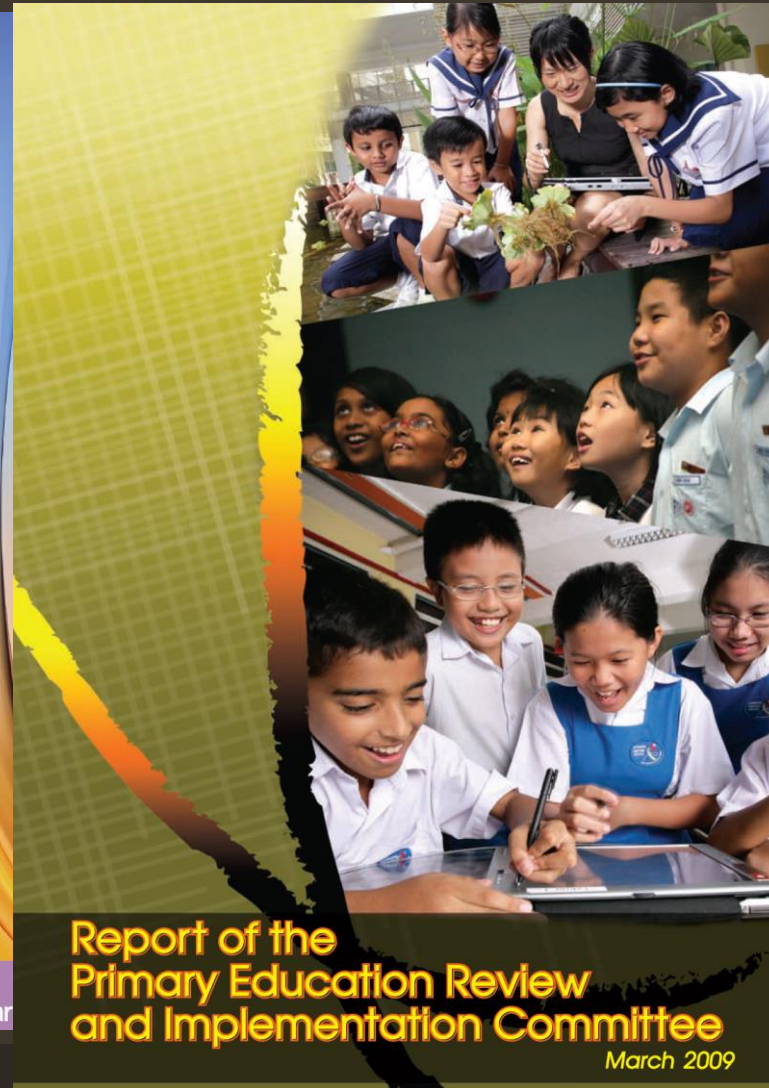


Educational assessment in England

Tina Isaacs

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Formative Assessment Implementation in Singapore Primary Schools – Part I: Using Assessment to Support the Learning and Development of Students

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Abstract

The Primary Education Review and Implementation (PERI) Committee made a series of recommendations to enhance primary school education. The intent was to realise a more holistic education and prepare our young for the future. One of the recommendations was to implement Holistic Assessment (HA) to support student learning and development.

Benchmarking the Student Assessment System

- A student assessment system includes all the policies, structures, practices and tools needed for generating and using information on student learning and achievement.
- High quality student assessment systems are comprehensive, coherent, balanced and fit for purpose, facilitating high quality learning.
- Student assessment systems contain three assessment tools, with differing purposes

Classroom & Continuous Assessment

- Formative
- Summative
- Diagnostic

National Learning Assessments

- Monitoring
- Accountability

Public Examinations

- Selection
- Certification

International Learning Assessments

- Monitoring
- Benchmarking

Quality characteristics of an assessment system

Characteristic	Key Question	Evidence/Indicators
Comprehensiveness	Are a variety of assessments used for various purposes?	Policies and funding to promote multiple measures. Examples and funding for different assessment measures.
Coherence	Are the assessments aligned to system goals/intentions, each other, and the curriculum?	Research evidence of alignment. Support for assessments that measure or promote high quality learning.
Balanced	Is appropriate emphasis given to the different assessment measures?	Inappropriate multiple assessment purposes. Inordinate policy emphasis on some assessments
Fitness for Purpose	To what extent are assessments used inappropriately?	Evidence of data misuse for some assessments.
Quality and rigour	Are assessments valid and reliable and consistently so?	Policies, funding, and institutional framework supportive of high quality.

Analysis of the Local System

Comprehensiveness	Are a variety of assessments used for various purposes?	Yes, but very limited emphasis on classroom formative and performance assessments.
Coherence	Are the assessments aligned to system goals/intentions, each other, and the curriculum?	Most assessments measure lower order skills. Alignment studies required.
Balanced	Is appropriate emphasis given to the different assessment measures?	Inappropriate emphasis on public examinations at all levels.
Fitness for Purpose	To what extent are assessments used inappropriately?	Widespread misuse of data from public examinations for accountability and even diagnosis.
Quality and rigour	Are assessments valid and reliable and consistently so?	Little evidence of institutional framework for or commitment to validity.

Comparator Countries

Perform	Location	Culture	Differentiation	Classification	Nation/Economy/ Region
Low	Caribbean	Anglo- Caribbean	High	Target Nation	Trinidad & Tobago
High	North America	Anglo	Low	High Performing Non-Differentiated	Canada, BC
High	Europe	Anglo	High	High Performing Differentiated	England
High	Asia	Confucian Asia	High	High Performing Asian	Singapore
High	Asia	Confucian Asia	High		Hong Kong
Low	South America	Latin America	High	Latin American Economies	Brazil
Low	South America	Latin America	High		Chile

Characteristic	Key Question	SINGAPORE	HONG KONG	ONTARIO	ENGLAND	Policy Lessons
Comprehensive	Are a variety of assessments used for various purposes?	PERI-HA policy for classroom assessments. Public Examinations at 11+, 16+ and 18+	AfL policy for classrooms. Public Examinations at 16+ and 18+	AfL policy for classrooms and large scale assessment for accountability.	Key Stage Tests, public examinations and formative classroom assessment in policy	Additional and varied assessments required.
Coherent	Are the assessments aligned to system goals/intentions, each other, and the curriculum?	Strongly in terms of objectives and intentions	AfL policy aligned to quality learning intentions	AfL tied to quality learning outcomes.	Validity and reliability studies conducted.	Alignment studies on public examinations and NLAs required
Balanced	Is appropriate emphasis given to the different assessment measures?	Formative assessment increasingly emphasized.	AfL strongly emphasized	AfL emphasized with attention to assessment as learning	AfL emphasized and promoted by academic community and think tanks	Limit emphasis on public examinations
Fitness for Purpose	To what extent are assessments used inappropriately?	Data use aligned to purpose	Data use aligned to purpose	Multiple use large scale assessments	Multiple purpose Key Stage tests	Reduce multiple purposes associated with public examinations
Quality and rigour	Are assessments valid and reliable and consistently so?	Public examinations measure higher order skills. Validity studies by SAEB	Validity studies by HKEAA	Validity studies by Ontario MoE	Nfer and Ofqual monitor assessments	Institutional framework required

Characteristic	Key Question	CHILE	BRAZIL	Policy Lessons
Comprehensive	Are a variety of assessments used for various purposes?	Extensive use of national assessments for learning and accountability. University Examinations (subject based) created since 1967 are a major gatekeeper. Created by the Universidad de Chile.	Extensive use of national assessments for learning and accountability (Prova and Provinha). Also some provinces have CA policies. National University Entrance Examinations are in place since 1998 with affirmative action policies to ensure fairness in the multi-ethnic society.	Enhanced NLA system required
Coherent	Are the assessments aligned to system goals/intentions, each other, and the curriculum?	Evidence of alignment between NLAs and system goals	Evidence of alignment between NLAs and system goals	Alignment studies needed
Balanced	Is appropriate emphasis given to the different assessment measures?	Insufficient attention to formative classroom assessment	Insufficient attention to formative classroom assessment despite installation of CA. Practice of formative assessment is varied.	Greater attention to classroom formative assessment
Fitness for Purpose	To what extent are assessments used inappropriately?	Learning assessments used for accountability	Best practice use of information from national learning assessments.	Better manage use of information from public examinations and NLAs
Quality and rigour	Are assessments valid and reliable and consistently so?	SIMCE and DEMRE contribute to system learning	There is a strong institutional framework for assessment and examinations such as INEP	Develop an institutional framework to manage assessment and evaluation

Policy Lessons

- Significant reform is needed if Trinidad and Tobago is to progress towards a comprehensive, balanced assessment system.
- Compared with other Latin American countries, more information is needed from surveys coupled with better-constructed monitoring assessments. Improvement in monitoring assessments cannot be done without an institutional and administrative structure such as the HKEAA.
- Policy and systems are required for improving classroom assessment-this is an urgent area of reform. This improvement must not be linked to school based or continuous assessments, but must be fully responsive to students' needs and interests. Such assessments clearly require greater assessment literacy among practitioners.
- Best practice is to develop detailed policy documents to guide training and practice. The evidence suggests that formative assessment and feedback are currently the most cost effective interventions in schooling.
- More evidence is needed on the validity and reliability of public examinations as well as systems of monitoring and quality assurance such as done by OFQUAL (UK) and UMALUSI (South Africa).

BEST
PRACTiCE



Detailed Assessment Policy in Ontario (2013) Learning for all: A guide for effective assessment and instruction for all Students Kindergarten – Grade 12. Toronto, ON: Queen's Printer for Ontario

Assessment for Learning

ASSESSMENT FOR LEARNING

DIAGNOSTIC ASSESSMENT

Occurs before instruction begins, to set learning goals and plan instruction and assessment that are differentiated and personalized

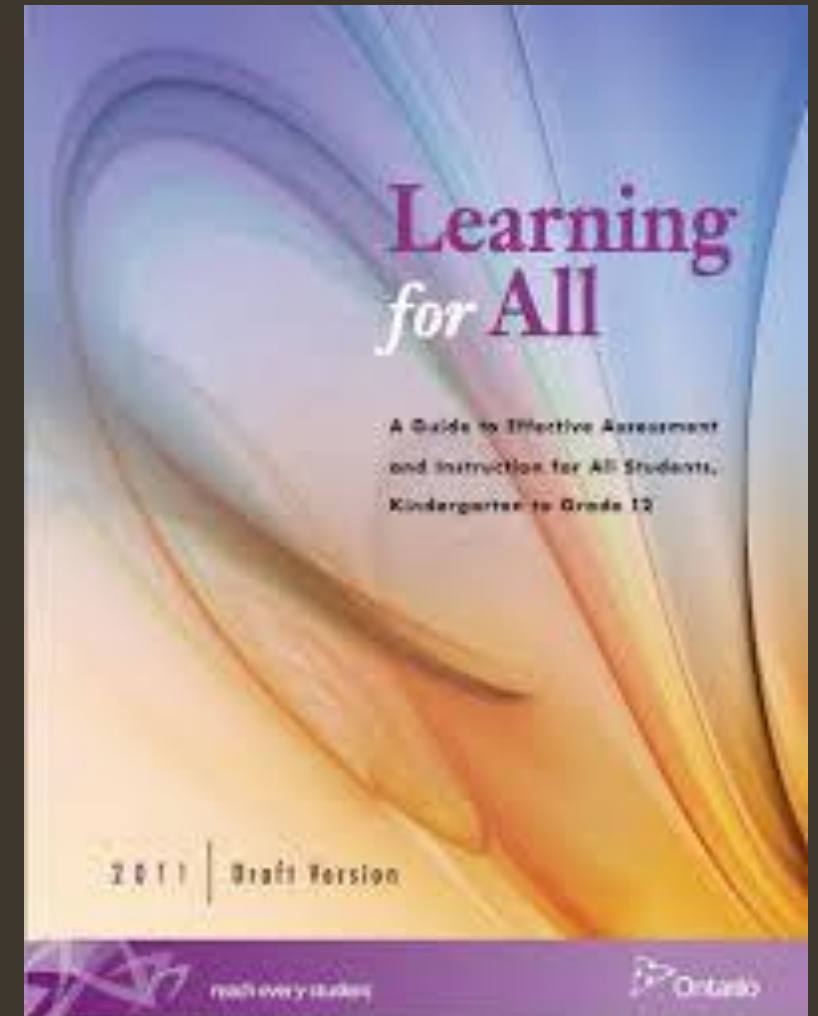
- Review of recent report cards
- Consultation with previous teachers, parents, special education teacher
- Classroom observation (e.g., anecdotal notes)
- Classroom assessments (e.g., pre-tests, assessment of student's prior knowledge)
- Interest inventory
- Commonly used school board assessments (e.g., oral language screening and reading comprehension tools), as well as assessments in alternative learning areas (e.g., daily living, social skills)
- Professional assessments, if needed
- Review of any existing transition plans

FORMATIVE ASSESSMENT

Occurs frequently and in an ongoing manner during the course of instruction, to monitor progress, provide feedback, and differentiate instruction and assessment

- Classroom assessments of various types, using various modes and media that best suit students' strengths and needs, learning styles and preferences, interests, readiness to learn
- Provision of timely descriptive feedback to students
- Use of assessment results to guide further instruction
- Use of the "moderate marking" process to support ongoing assessment and monitoring of student learning

Accurate and reliable assessment for learning provides the foundation for personalization and precision in instruction.



Implementation lessons from the Singapore PERI Holistic Assessment Capacity Building Framework



PERI HA Capacity Building Plan **Teacher Competency**

- Quality Classroom Assessment
- 5 Principles of Sound Assessment

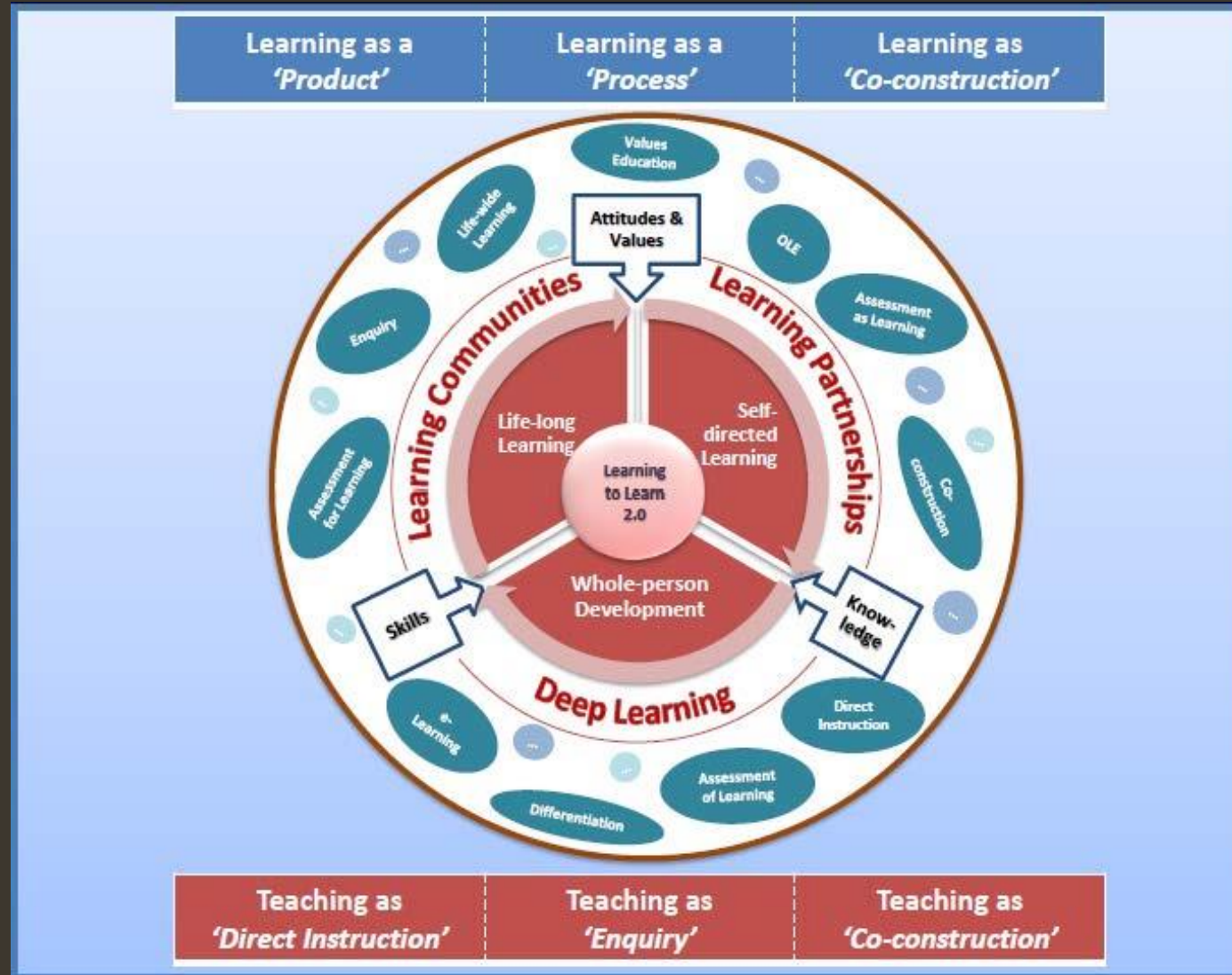
School Leadership Competency

- Balanced & Quality School Assessment Systems
- 7 Action Areas to ensure Student Success

Key Components of PERI HA Capacity Building

- Seminars & Exhibitions
- Assessment Literacy & Subject-Specific Workshops
- Professional Learning & Consultancy
- Networking & Learning Journeys
- Teacher Learning Communities
- Classroom Assessment Practice & Feedback

Hong Kong Policy integrates assessment for learning with pedagogy



A Model for Classroom Assessment

TERM 1

- FORMATIVE ASSESSMENTS
- SCHOOL SUMMATIVE ASSESSMENT

TERM 2

- FORMATIVE ASSESSMENTS
- DISTRICT INTERIM ASSESSMENT

TERM 3

- FORMATIVE ASSESSMENT
- SCHOOL SUMMATIVE ASSESSMENTS
- NATIONAL TESTS

ANNUAL SCHOOL YEAR

Formative assessments (graded & ungraded) throughout term

School-wide Common Summative tests for reporting

Formative assessments (graded & ungraded) throughout term

Some districts may implement interim or benchmark assessments

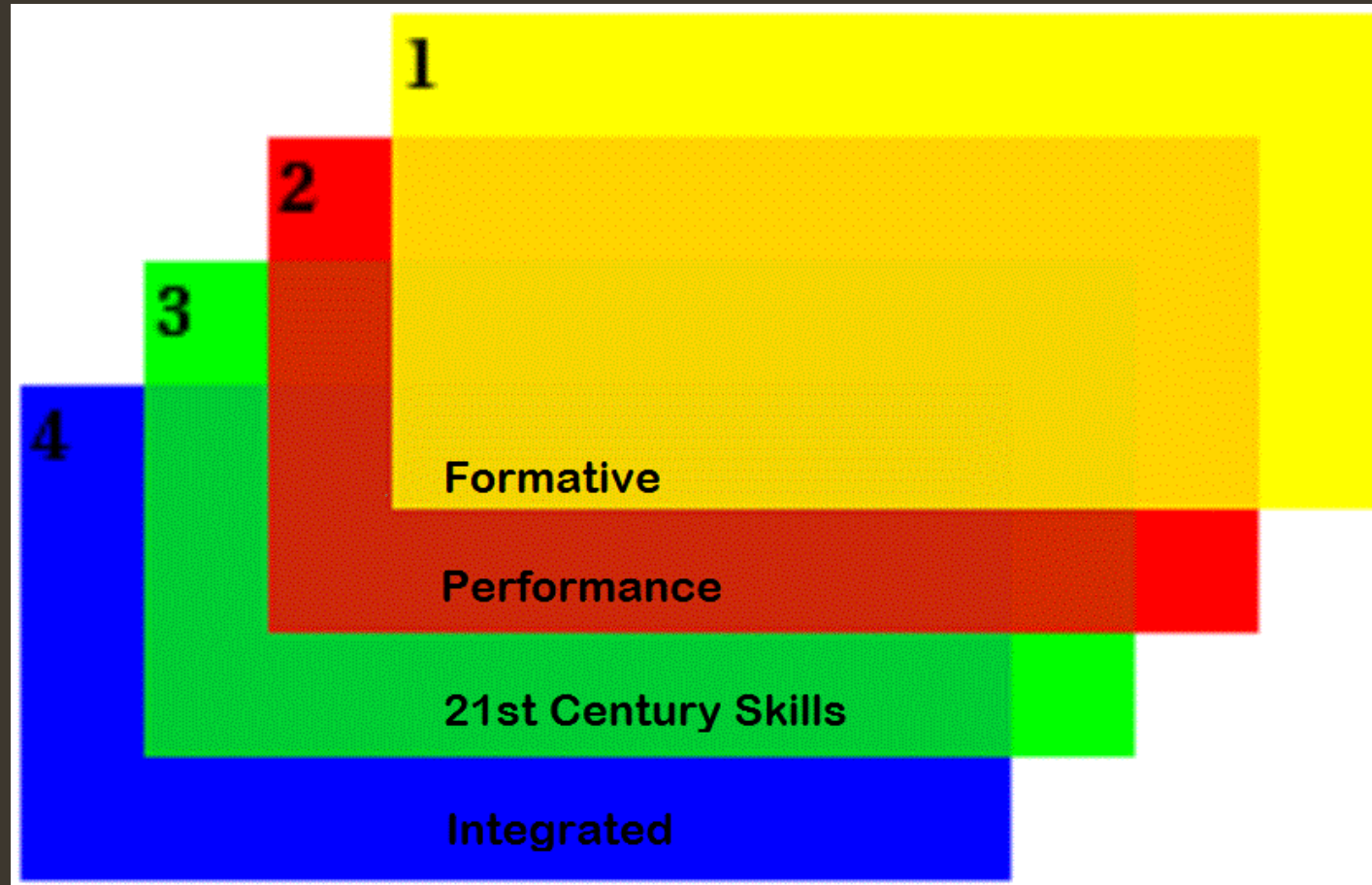
Formative assessments (graded & ungraded) throughout term

School-wide tests for reporting followed by national tests

A Model for Classroom Assessment in Trinidad and Tobago-FPSI

Major Focus	Secondary Focus	Rationale & Theory
(F) Formative	Multiple Measures	Promote & support learning
(P) Performance	Diversified	Identify what students know and can do. Use performance understanding to diagnose learning in constructivist settings. Employ multiple measures, including diversified and continuous assessment
(S) 21st Century Skills	Critical Thinking	Promote holistic learning
(I) Integrated Learning	Subject Centred	Focus upon deep & integrated learning

FPSI explicitly includes four levels in the design of classroom assessment tasks







Formative

Where the learner is going? **Where the learner is now?** **How to get there?**

Teacher	1. Clarifying, sharing, and understanding learning intentions and criteria for success – getting the students to really understand what their	2. Engineering effective classroom discussions, activities, and learning tasks that elicit evidence of learning – developing effective classroom instructional strategies that allow for the measurement of success.	3. Providing feedback that moves learning forward – working with students to provide them the information they need to better understand problems and solutions -
Peer	classroom experience will be and how their success will be	4. Activating learners as instructional resources for one another – getting students involved with each other in discussions and working groups can help improve student learning.	
Self	measured - -	5. Activating learners as owners of their own learning	

Performance

Making	Saying	Doing	Writing
 <p>A cartoon illustration of a young boy with red hair, wearing a purple shirt and pink pants, kneeling on the floor. He is smiling and holding a string with colorful triangular flags. There are more flags and a glue stick on the floor around him. A watermark 'classroomclipart.com' is visible at the bottom.</p>	 <p>A cartoon illustration of a female teacher with brown hair, wearing a red dress over a blue shirt, sitting on the floor and reading a book to three children. The children are sitting around her, looking at the book. The book shows a tree and a sun. A watermark '©fumira' is visible at the bottom.</p>	 <p>A cartoon illustration of three children painting. A girl with orange pigtails is kneeling and painting a flower. A boy with blonde hair is standing and painting a stick figure. A boy with dark skin and a black beanie is kneeling and painting a stick figure. There are paint pots and brushes on the floor. A watermark 'dreamstime.com' is visible at the bottom.</p>	 <p>A cartoon illustration of a young boy with black hair, wearing a green and black striped shirt, sitting at a desk and writing in a blue notebook with a pen. The desk is brown.</p>

21st Century Skills



WAYS OF THINKING

Creativity
Critical Thinking
Metacognition

WAYS OF WORKING

Communication
Collaboration

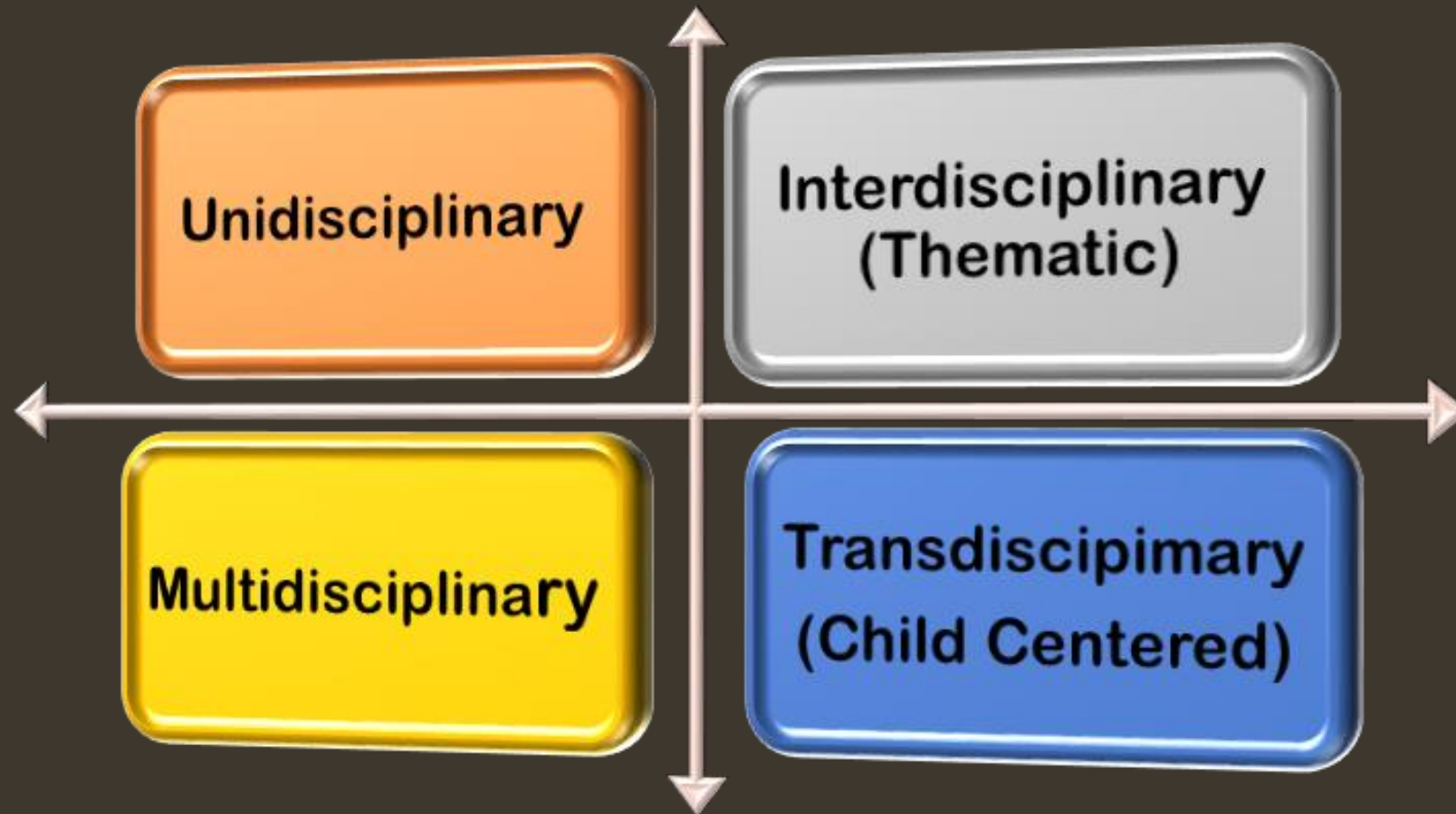
TOOLS FOR WORKING

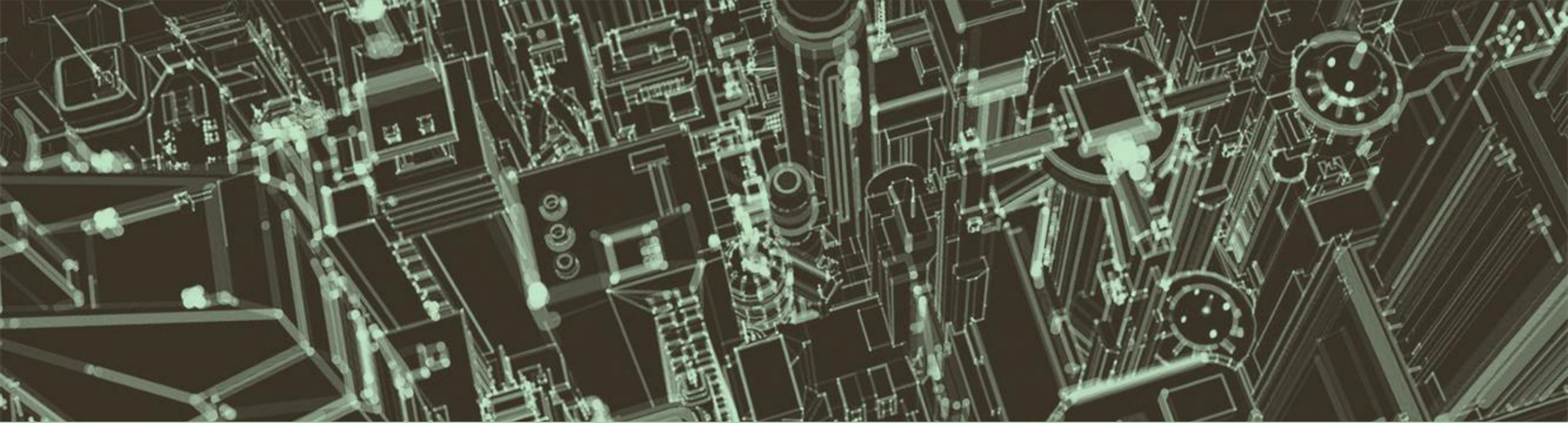
Information
Literacy
ICT Literacy

LIVING IN THE REAL WORLD

Citizenship
Personal and
Social
Responsibility
Life and Career
Goals

Integrated Learning





Benchmarking Teacher Preparation & Education in Trinidad & Tobago

The 'quality of an education system cannot exceed the quality of its teachers'



The sub-systems in TPE

Teacher Selection

- Interest
- Ability

Teacher Pre-Service & In-Service

Teacher Induction

Supporting Teachers in Effective Delivery

- Institutional Development & Collaboration
- System Support

Continuing Professional Development

- Site-based
- System

Questions to guide policy development

- *What quality of candidates are attracted into teaching?*
- *What selection model is used- competitive examination, open recruitment, or candidate list?*
- ***What knowledge, skills, and character attributes /dispositions make an effective teacher?***
- *What kind of teachers remain in teaching?*
- *How does the school context affect teacher practice?*
- *How do beliefs, values, and dispositions affect teacher practice?*
- ***What is great pedagogy?***
- ***What kind of professional development leads to great pedagogy?***
- *How can teachers, teacher preparation programmes, and teaching be evaluated?*
- *What types of professional learning is most effective for teachers?*
- *In teacher preparation programmes, what should be the balance between clinical training and content learning?*
- *Are innovations in teacher preparation programmes up to date and appropriate?*
- *How are teacher preparation programmes related to effectiveness?*

Analysis of local policy context

- There is useful initial local work (MoE) on policy development by consultant and MoE unit on teacher development.
- However, proposed models are not consistently evidence-based or specifically designed to address inherent weaknesses in local teacher preparation. Current challenges include the lack of collaboration between Universities, MoE, and the cooperating schools.
- There is insufficient attention to the pedagogies, programmes, and places in which teacher education is enacted and even less attention on how quality is to be sustained.
- It might be to Trinidad and Tobago's advantage to better understand the elements of best practice in teacher education and preparation in high performing education systems.

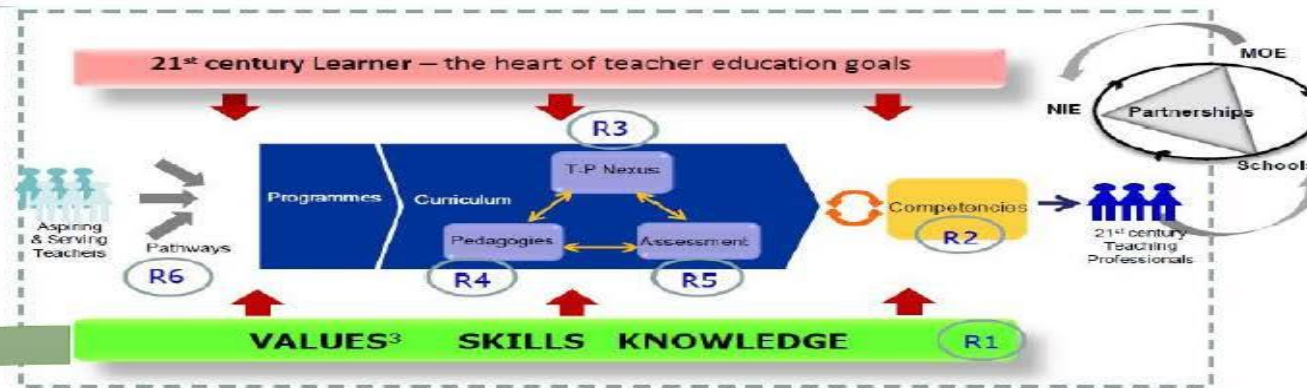
Elements of Best Practice



- a systemic approach
- strong recruitment initiatives
- increasingly thoughtful preparation and mentoring
- purposeful support for ongoing learning
- proactive leadership development

Best Practice in the Singapore Education System

- The Singapore system includes a number of best practices in the five identified sub-systems. For example, in Singapore the V³SK model is a core component of the framework and is focused on enhancing the values and dispositions of graduating teachers.
- The V3Sk model focuses upon three value paradigms, learner centred, teacher identity, and service to the profession and community.
- Another notable aspect of the Singaporean model is the explicit focus on strengthening the theory-practice nexus (increased coherence based on a single vision of the teacher). The lack of coherence between theory and practice is widely accepted as a shortcoming in teacher education. This is achieved through mentoring, clinical experiences, school based inquiry, and an explicit reflective teaching model.



Strengthening the NIE TE Model – Mapping the Recommendations

- | | |
|---|---|
| R1 New V ³ SK | R4 Extended Pedagogical Repertoire |
| R2 Graduated Teacher Competencies | R5 Assessment Framework for 21 st Century Teaching & Learning |
| R3 Strengthening Theory-Practice Nexus | R6 Enhancing Pathways for PD |

Attributes of the 21st Century Teaching Professional

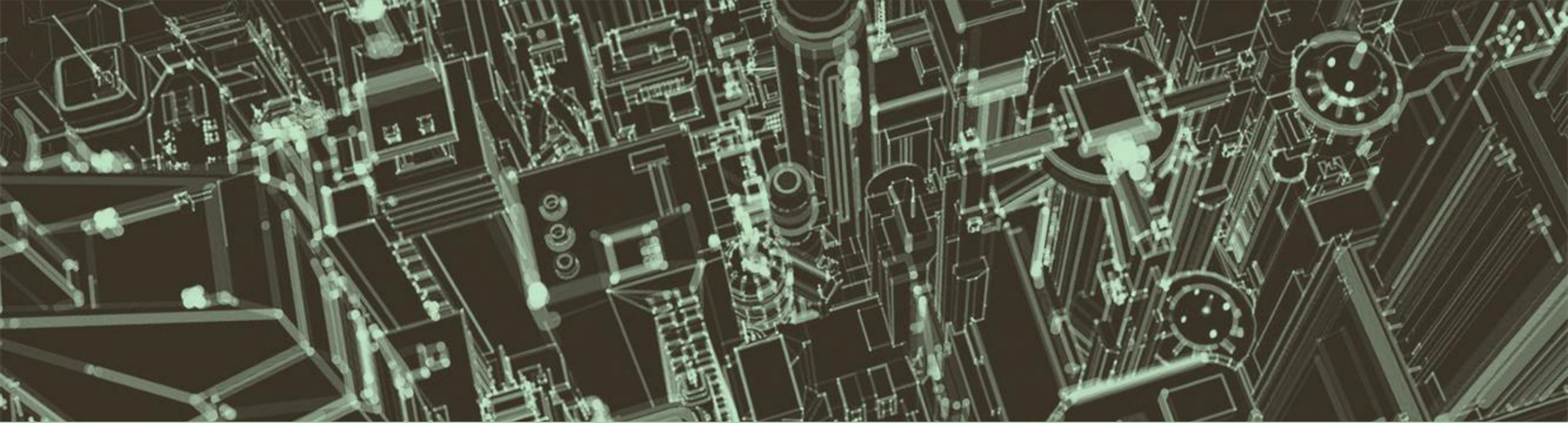
V1 – Learner-Centered Values	V2 – Teacher Identity	V3 – Service to the Profession and Community
<ul style="list-style-type: none"> • Empathy • Belief that all children can learn • Commitment to nurturing the potential in each child • Valuing of diversity 	<ul style="list-style-type: none"> • Aims for high standards • Enquiring nature • Quest for learning • Strive to improve • Passion • Adaptive & resilient • Ethical • Professionalism 	<ul style="list-style-type: none"> • Collaborative learning and practice • Building apprenticeship and mentorship • Social responsibility & engagement • Stewardship
SKILLS		KNOWLEDGE
<ul style="list-style-type: none"> • Reflective skills & thinking dispositions • Pedagogical skills • People management skills • Self-management skills • Administrative & management skills • Communication skills • Facilitative skills • Technological skills • Innovation & entrepreneurship skills • Social & emotional intelligence 		<ul style="list-style-type: none"> • Self • Pupil • Community • Subject content • Pedagogy • Educational foundation & policies • Curriculum • Multicultural literacy • Global awareness • Environmental awareness

Characteristic	Key Question	SINGAPORE	HONG KONG	FINLAND	ENGLAND/UK	NETHERLANDS
Teacher Selection	What is the quality of entrants?	High because of salary reforms in 1996 and social prestige. Training supported by Government but teachers are bonded	Tensions and shortages in teacher supply. Permitted teachers exist.	Teaching has high social prestige and entrance is selective and multi-phased.	The profession is historically respected, but there is also declining cultural value. There are shortages in obtaining qualified staff.	The profession was held in high prestige but societal value has declined. There are financial incentives and special programmes for attracting individuals into the profession.
Pre-Service & In-Service Provision	What is the quality of this provision?	University based programme in NIE. Two routes of entry exist. Values, Skills, Knowledge model implemented in the curriculum. Programmes are a minimum 4 years. 10 week teaching practice.	There are four distinct pre-service routes of four years. To be increased to five years. Part time route still favoured. Programmes and institutions vary.	Training is broad-based and emphasizes pedagogical thinking skills. Content knowledge is strong even in primary teacher education. Teacher practice is extensive and three phased.	There are various routes and providers. There are school centred trainings such as the School Centred Teacher Training and the Graduate Teacher Programmes. The PGCE is the traditional graduate route for entry. 18-24 weeks on school placement is a part of the training.	There are different routes with first and second level teaching qualifications. In research universities, students' gain qualifications in education after a Master's in content. There are efforts to bridge theory and practice.

Characteristic	Key Question	SINGAPORE	HONG KONG	FINLAND	ENGLAND/UK	NETHERLANDS
Teacher Induction	How are teachers inducted?	Formal system with teachers' pledge and mentor assigned.	Induction programmes are variable and schools have autonomy.	Teacher induction system not fully developed and schools have considerable autonomy in procedures and support for beginning teachers	In England there is clear advice on induction (Sections 135A, 135B and 141C of the education Act 2002. Statutory induction acts a bridge between initial teacher training and the teaching career.	Training includes substantial clinical content
Support for Effective Delivery/CPD	How is effective delivery supported? What policies guide CPD?	Professional development is on national agenda. Professional Development Continuum Model established in 2004. Grants available for teachers and schools.	System designed and commissioned CPD. Four types although philosophy of one size fits all is dominant	Professional development systems are not always aligned to teacher preparation programmes. However, there is some public funding. There is collective responsibility for several school tasks, however.	There are a variety of service providers in this market with central systems ensuring a level of professional development. In Wales and Scotland there is the Chartered teacher route.	The Education Professions Act regulates competence standards for all education-related professions. This act requires that all schools establish a support programme for new staff. However, much of the CPD is informal.

Policy Lessons

- Enacted policy in Trinidad and Tobago must explicitly consider the five identified areas in the system. Currently, the systems for induction and continuous professional development are not coherent with practice in initial teacher preparation education.
- More thought on improving recruitment/selection systems. More research into these key areas, including information on the quality of teacher preparation programmes.
- In the absence of standards and licensure, the Trinidad and Tobago Ministry must specify what is expected of service providers. This advice must be informed by evidence and research.



Evidence Informed Policy- Making & Use of Research in Education



Making Educational Policy



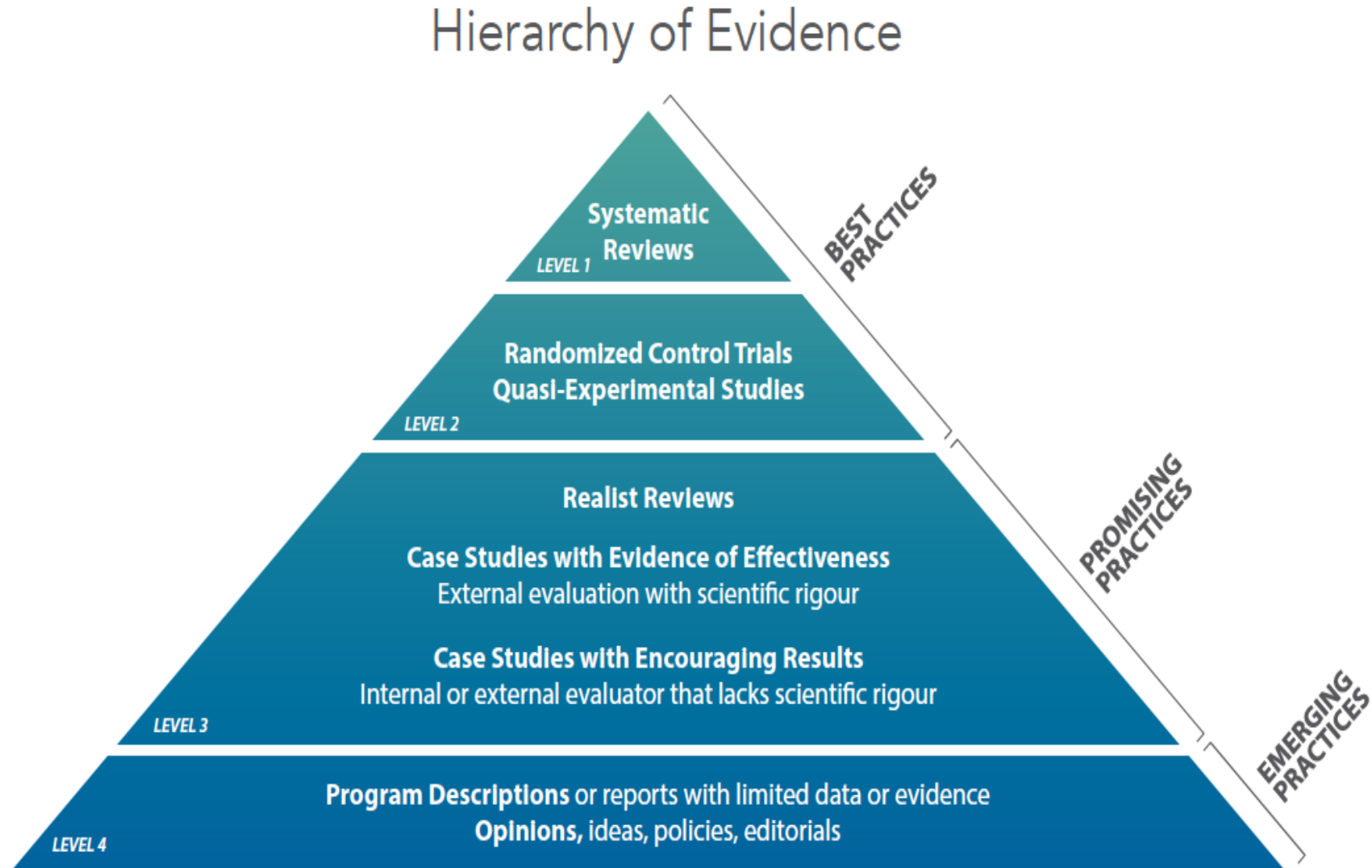
The Role of Research Evidence

- Evidence alone is not used to guide policy decisions, but evidence must be highly weighted in any policy decision, even when there might be overriding social and political considerations.
- Evidence is especially critical in a time when funding is limited.
- Several factors limit evidence-based policy in the global South, including the existence and role of core elites, the dominance of politics and particularism, and the limited capacity in evidence generation and use.
- The TTMoE lacks both the capacity to generate high quality research and data and structures to incorporate such evidence in policy-making.

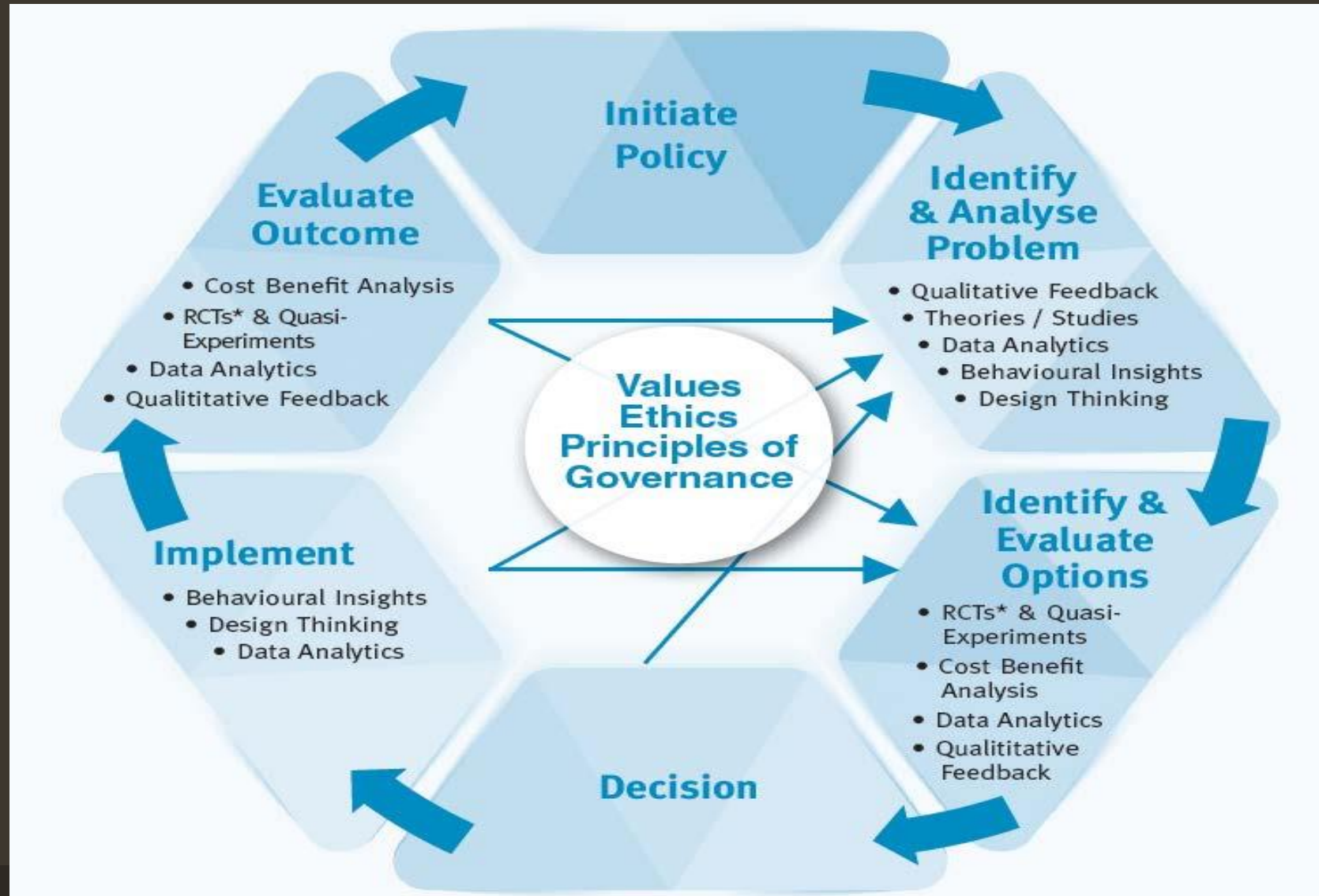
On Evidence

- **Reviews of specific education practices are often contained in meta-analyses, best evidence syntheses and “what works clearinghouses”.**
- Best evidence syntheses have been used to inform policy reform by the New Zealand Ministry of Education. This process draws on a wide range of evidence (including single case studies) and explores the impact of context. At the same time the process makes use of an iterative, participatory approach to building and using a knowledge base. The IES “what works clearinghouse” reviews high quality research on programmes, products, practices, and policies in education.
- In the context of the global South and in Trinidad and Tobago in particular, local knowledge must be considered. In many instances, there is insufficient local knowledge (country-specific or regional) on key issues. The absence of local knowledge affects not only implementation as Louisy (2004) suggests, but also the development of efficacious education interventions.

What is Credible Evidence?



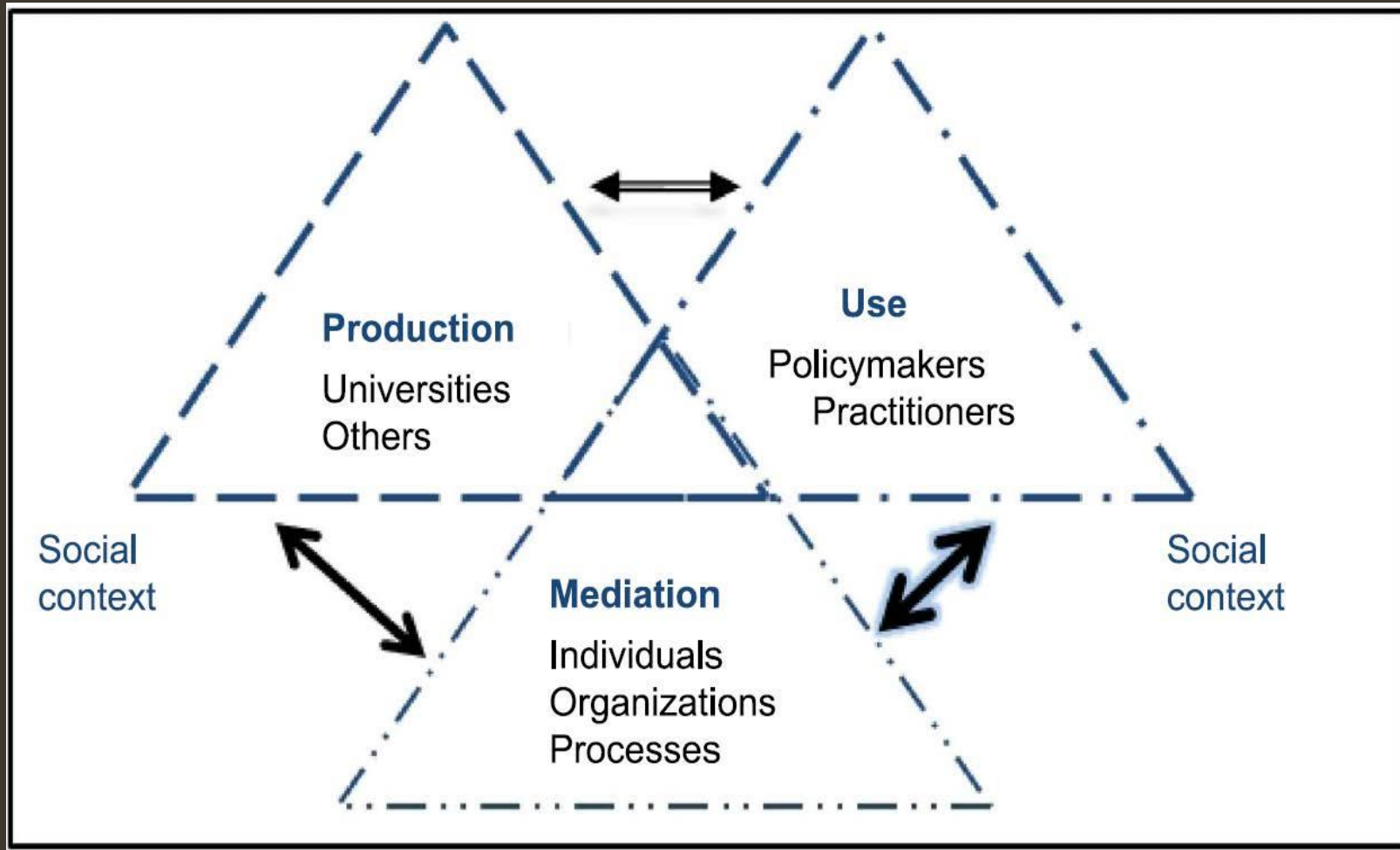
Evidence-Informed Policy Making Tools (Singapore)



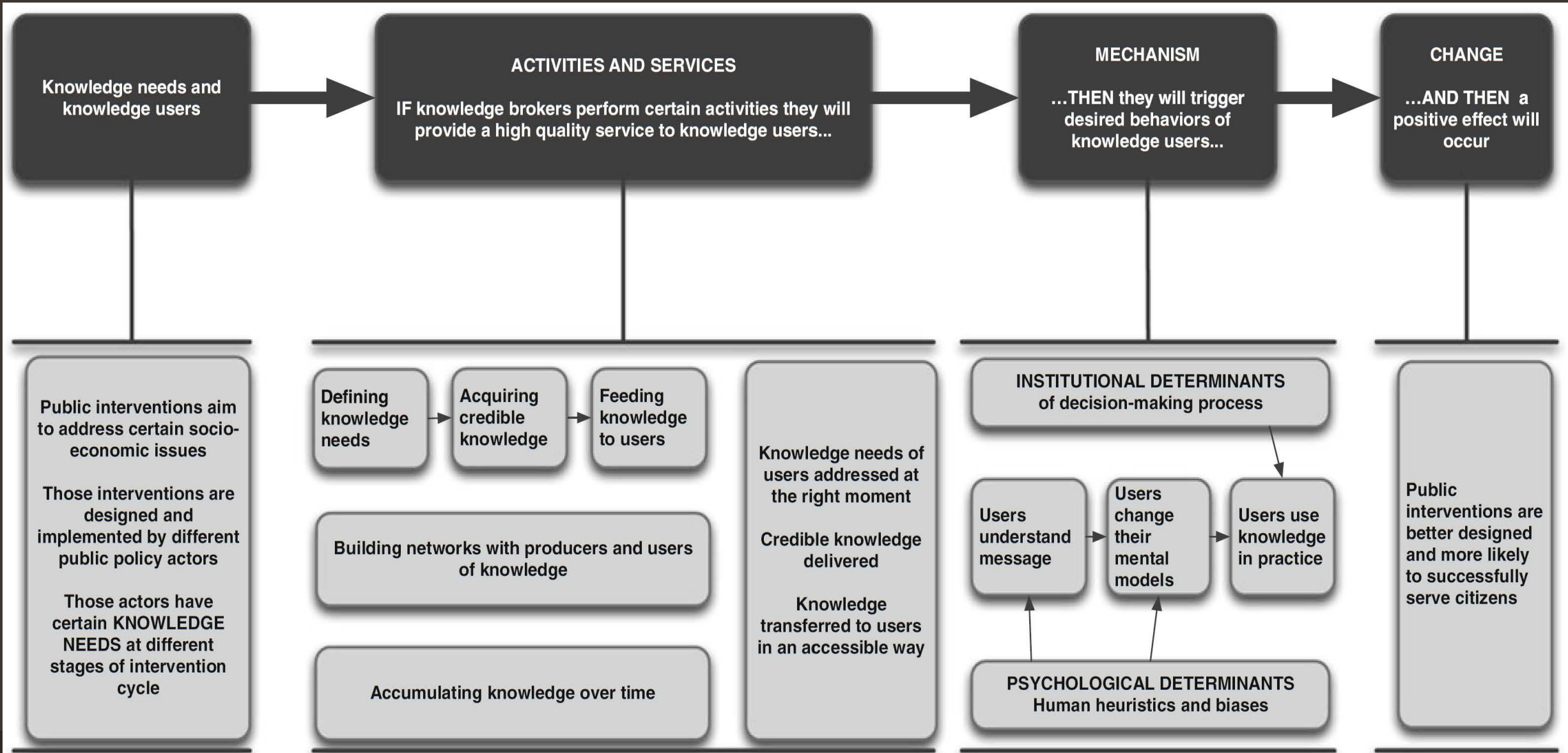
Knowledge Mobilization has a Critical Role

- 1) **Origination and planning - Conditions for the facilitation and prioritization of research activity.**
- 2) **Creation and production-initiation and completion of various types of research projects**
- 3) **Assessment and validation of research through peer review and other processes**
- 4) **Collection and interpretation of research in libraries and databases**
- 5) **Mediation and brokerage by addressing multifaceted communication strategies**
- 6) **Use and impact on policy and practice**

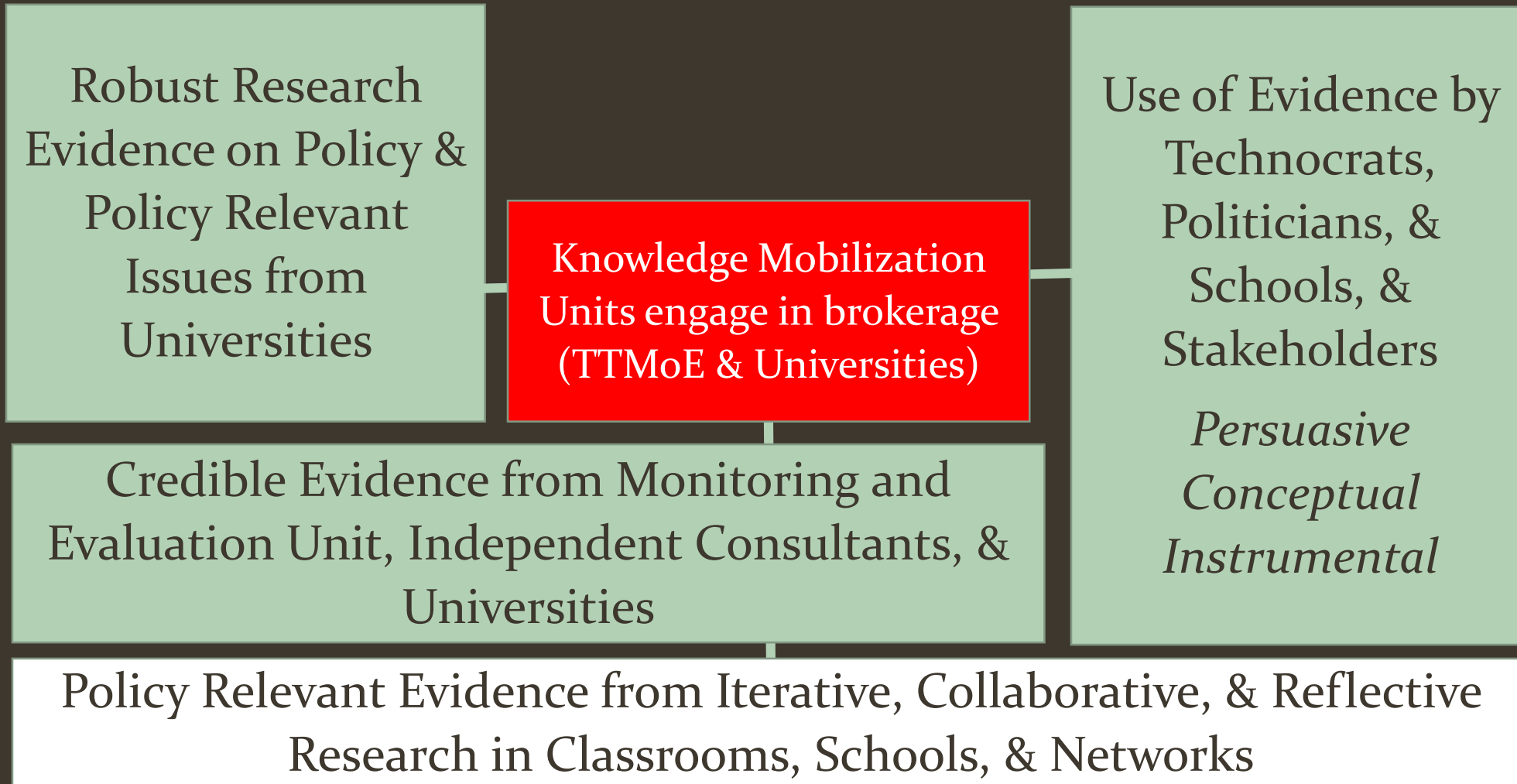
KM (Ontario Model)



How KM can help the TTMoE



A Model for KM in the TTMoE



Analysis of EIPM

- **Knowledge production in education is very weak** in Trinidad and Tobago. No specialized centres and no think tanks. Even the largest university produces limited research in the field of education, with few publications in highly ranked international peer reviewed journals. Transnational universities do not produce robust research on local issues nor are they required to by regulatory agencies such as the ACTT.
- **Funding for education is very limited**, although there have been schemes between the Government and the University of the West Indies such as the RDI. Funding and support at the UTT is limited. There is very little funding from businesses and charitable organizations as if education is not connected to critical economic constructs such as diversification and innovation.
- There is limited attention to **research quality** with no overall evaluation or institutional evaluation schemes. There seems to be an overemphasis on case studies and empirical large scale studies with representative samples are few and far between.

Analysis Continued

- There are very few quasi or true experimental studies, although inappropriate references to causal processes and events are common. Some qualitative studies are not true to the methodological perspective and the study design may be mislabelled.
- Large scale census data is increasingly available through national and international learning assessments. Nevertheless, insufficient use is made of the data and there are few local studies using secondary data.
- Some knowledge brokering occurs at some Universities and the Ministry of Education has been successfully retooled to perform this function. However, there are mostly traditional approaches to disseminating research.
- There is both instrumental and symbolic use of data and evidence, but a lack of consistent use for major policymaking activity. There is no clear policy on evidence informed policymaking and no university or national centre for networking on relevant issues.

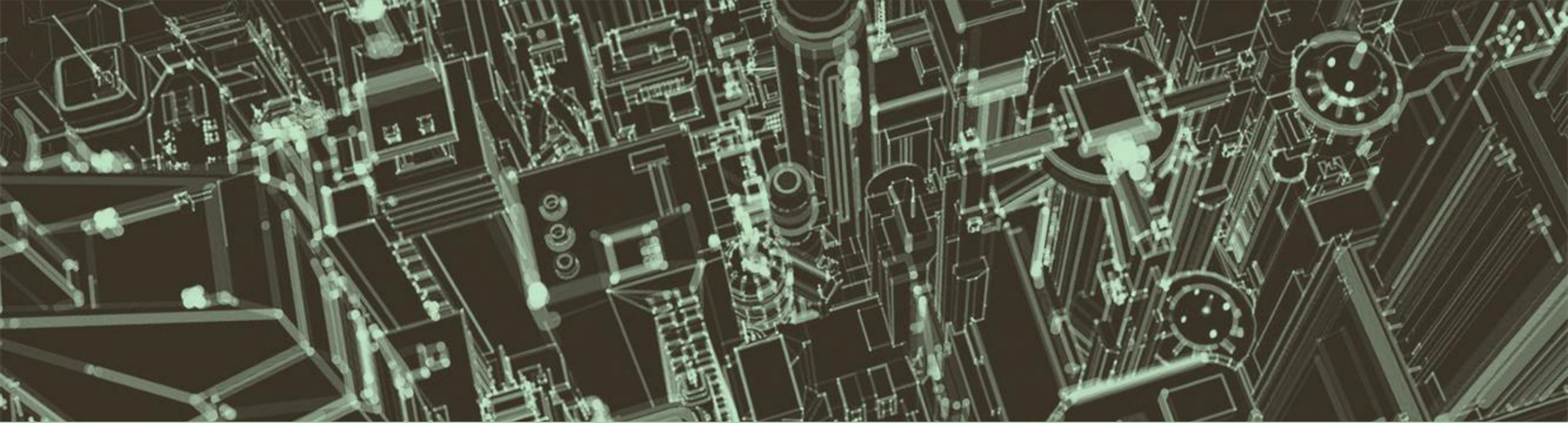
Characteristic	Key Question	SINGAPORE	CANADA (Ontario)	ENGLAND/UK
Knowledge Production	How is evidence generated promoted?	<p>A distinctive tight coupling relationship exists between the MoE, NIE, and the school system. All research is conducted by NIE academics. NIE includes seconded MoE staff. Select MoE staff expected to spend 20% of time on research.</p> <p>Dedicated and regular funding from 1999 through Education Research Fund (EdRF). NIE has established the Centre for Research in Pedagogy and Practice (CRPP). CRPP is focused on developing and innovating pedagogical practice. Second grant in 2007/8 focused on MoE policy priorities, international research findings, and changing institutional landscape.</p>	<p>Provincial system and strong University sector. Over 70 Universities and 50 programmes in Faculties of Education. Universities have traditional promotion requirements focused on peer reviewed print publications. There is significant funding for research and publication from private sector, government, and university sectors. Both direct and indirect funding are considered along with graduate student support. Some awards are competitive and interest driven. National Centres of Excellence facilitate a high level of national research networking.</p>	<p>In England, education policy is highly politicized and therefore not always consistent across periods and parties. However, there has been a clear consistent focus on evidence-informed policy making. There is institutionalized support for research at Universities through the Higher Education Funding Council (HEFCE). The DFE also funds research directly through specific studies and research centres. Some funding for education is also available through the economic and Social Research Council (ESRC). Universities are the predominant source of research, but private providers and charities also play a role.</p>

Characteristic	Key Question	SINGAPORE	CANADA (Ontario)	ENGLAND/UK
Knowledge Mediation	How is the research-policy gap mediated (brokered)?	Focus on getting all stakeholders, especially practitioners to be engaged in informed dialogue. NIE has clear focus on strengthening theory-practice nexus. Various means of dissemination, including online media. A database describing classroom practice has been built with CRPP funding. Extensive dialogue with MoE senior and middle managers initiated by NIE's Office of Educational Research (OER) and Moe's Planning Division. Additional forum for evidence based conversations including three partners. Design research has been used to incorporate contextual information and practitioner knowledge. Professional learning has been used as a strategy in mediation.	Sharing and transfer has been a significant focus of KM research in Canada. Among policymakers and practitioners there has been greater focus on applied research. Universities remain the single biggest creators of knowledge but are increasingly playing a role in brokering/mediation. Apart from professional publications, there is greater support for schools and professional organizations. Grant funding proposals must include mechanisms of dissemination. Still a lack of capacity remains a limiting factor. The Ontario Education Research Panel facilitates "discussion and collaboration among Ontario's school boards, faculties of education, researchers, professional organizations, community agencies, and ministries relating to research priorities for Ontario education."	Traditional approaches to disseminating knowledge such as conferences and academic journals still predominate in England. There is an increase in demand-side pressure through schools and agencies asking for research and funding through direct

Characteristic	Key Question	SINGAPORE	CANADA (Ontario)	ENGLAND/UK
Knowledge Application/ Use	How is evidence use in decision making promoted?	<p>Policy is strongly linked to evidence derived from multiple sources, including local knowledge and international sources. Significant capacity in MoE linked to ability to translate vision provided by politicians. Duplication of roles facilitates articulation between planning, evidence and policy.</p> <p>There is useful guidance on evidence-informed policymaking in Singapore.</p>	<p>Provincial Government have data available from both universities and Ministries of Education. The Ontario MoE declares itself 'committed to developing and implementing policies, programs, and practices that are evidence-based, research-informed, and connected to provincial education goals.'</p>	<p>There is explicit focus on evidence-informed policy making in Government policy and structures to facilitate this approach to policymaking such as the Evidence for Policy Practice Informational (EPPI) Centre. Although many components of an evidence-informed policymaking infrastructure exist, in practice the system is not coherent or extremely efficient.</p>

Policy Lessons

- In Trinidad and Tobago, the structures and processes for knowledge production in education must be significantly improved. **This requires better identification of policy priorities, funding structures, training of researchers, and evaluation of research output.**
- **Knowledge transfer is also critical and therefore the work of knowledge brokers must be enhanced** with research networks, research centres which include researchers from the MoE and universities, and competitive bidding for selected research projects.
- Policymaking practice must be made more transparent and systematic with clear guidelines on evidence-informed policymaking provided (including considerations of what is high quality policy research).
- The MoE must reach out and build a robust network of local researchers. At the same time, it must also work with the regulatory bodies such as ACTT to promote higher quality research in the higher education institutions.



Benchmarking Violence, Indiscipline, & School Safety

Functional Benchmarking (Interventions for the Function)



Defining the Issue

- Violence (in schools) as a specific form of risk behaviour is defined as a purposeful damage in form of a physiological or psychological action that is directed against the self, other persons (student against student; student against teacher; teacher against teacher or teacher against student), or against objects (vandalism)

Benchmarking Violence, Indiscipline, & School Safety

- Evidence on the situation in Trinidad and Tobago is mixed. Acts of severe indiscipline (violence) may be rare, but tone of school or frequency of minor issues might be the problem.
- Evidence of correlation between school climate indicators in both primary and secondary schools from PISA and PIRLS.
- Arizona State study of high risk schools does not confirm sharp indiscipline, although no baseline was established.

Review PIRLS evidence

Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements.

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
1) This school is located in a safe neighborhood -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) I feel safe at this school -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) This school's security policies and practices are sufficient -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) The students behave in an orderly manner -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5) The students are respectful of the teachers -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



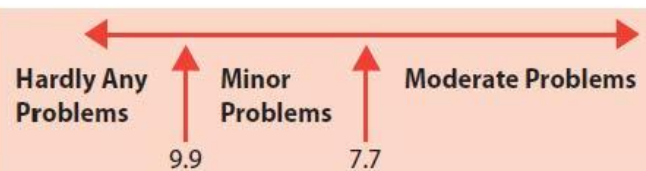
Teacher Assessment

SYSTEM	SAFE & ORDERLY		SOMEWHAT SAFE & ORDERLY		NOT SAFE & ORDERLY	
	% Students	Average Achievement	% Students	Average Achievement	% Students	Average Achievement
T&T	28 (3.9)	482 (8.6)	52 (3.9)	469 (6.1)	20 (3.1)	461 (9.1)
FINLAND	35 (3.5)	573 (2.6)	59 (3.8)	566 (2.3)	6 (1.7)	554 94.7)
SINGAPORE	64 (2.2)	576 (4.1)	34 (2.2)	551 (5.2)	2 (0.6)	
NORWAY	64 (4.6)	510 (2.4)	36 (4.6)	501 (3.2)	0 (0.0)	
ENGLAND	72 (3.7)	561 (3.0)	27 (3.1)	533 (4.3)	1 (0.0)	
INDONESIA	91 (2.6)	429 (4.5)	9 (2.6)	425 (13.8)	0 (0.0)	

Principal's Assessment

To what degree is each of the following a problem among fourth grade students in your school?

	Not a problem	Minor problem	Moderate problem	Serious problem
1) Arriving late at school -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) Absenteeism (i.e., unjustified absences) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) Classroom disturbance -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) Cheating -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5) Profanity -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6) Vandalism -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7) Theft -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8) Intimidation or verbal abuse among students (including texting, emailing, etc.) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9) Physical fights among students -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10) Intimidation or verbal abuse of teachers or staff (including texting, emailing, etc.) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Principal's Assessment & Achievement in PIR:S 2011

SYSTEM	HARDLY ANY PROBLEMS		MINOR PROBLEMS		MODERATE PROBLEMS	
	% Students	Average Achievement	% Students	Average Achievement	% Students	Average Achievement
T&T	38 (4.3)	483 (7.2)	52 (4.4)	464 (6.0)	10 (2.4)	461 (9.1)
NORWAY	58 (4.4)	507 (2.9)	3 94.2)	507 (3.2)	3 (01.6)	496 (10.2)
FINLAND	64 (4.5)	571 (2.3)	34.4 (4.4)	564 (3.2)	2 (1.2)	554 94.7)
SINGAPORE	67 (0.0)	568 (4.0)	33 (0.0)	565 (5.8)	0 (0.6)	
INDONESIA	7 (2.4)	442 (14.2)	18 (3.6)	428 (11.8)	75 (4.3)	428 (4.8)
ENGLAND	75 (4.4)	557 (3.3)	24 (4.3)	532 (5.8)	1 (1.0)	

Schools Safety Problems in PISA 2009

Education system	% STUDENTS IN SCHOOLS WHERE PRINCIPAL REPORTS THAT THIS IS NOT A PROBLEM					
	Student Absenteeism	Disruption	Skipping Classes	Lack Respect for teacher	Use of alcohol or illegal drugs	Bullying
TRINIDAD	32	46	51	58	88	70
FINLAND	27	38	57	67	96	71
SINGAPORE	64	75	83	86	100	94
ENGLAND	62	85	89	88	97	97
CHILE	43	68	53	87	86	86
MEXICO	60	74	74	90	90	88
BRAZIL	50	36	57	63	89	91

School Violence in Trinidad & Tobago

- School violence cannot be addressed as a single simple solution; but rather as a variety of interconnected problems, challenges and interventions.
- Thus, there is a need for evidence-based programmes on school violence and safety in Trinidad and Tobago. These programmes may be (1) psychoeducational, (2) behavioural, (3) schoolwide and organizational, or (4) positive youth development focused.

School Violence (Systematic Reviews and Meta-analyses)

- **Bullying**

- Ansary, N. S., Elias, M. J., Greene, M. B., & Green, S. (2015). Guidance for schools selecting antibullying approaches translating evidence-based strategies to contemporary implementation realities. *Educational Researcher*, 44(1), 27-36.
- Chalamandaris, A. G., & Piette, D. (2015). School-based anti-bullying interventions: systematic review of the methodology to assess their effectiveness. *Aggression and Violent Behaviour*, 24, 131-174.
- Evans, C. B., Fraser, M. W., & Cotter, K. L. (2014). The effectiveness of school-based bullying prevention programs: A systematic review. *Aggression and Violent Behaviour*, 19(5), 532-544.

- **School Climate**

- Steffgen, G., Recchia, S., & Viechtbauer, W. (2013). The link between school climate and violence in school: A meta-analytic review. *Aggression and Violent Behaviour*, 18(2), 300-309.
- Thapa, A., Cohen, J., Guffey, S., & Higgins-D'Alessandro, A. (2013). A review of school climate research. *Review of Educational Research*, 83(3), 357-385.
- Wang, M. T., & Degol, J. L. (2016). School climate: A review of the construct, measurement, and impact on student outcomes. *Educational Psychology Review*, 28(2), 315-352.

School Violence (Systematic Reviews and Meta-analyses)

- **School Physical Environment**
 - Johnson, S. L. (2009). Improving the school environment to reduce school violence: A review of the literature. *Journal of School Health*, 79(10), 451-465.
- **School Safety**
 - Astor, R. A., Meyer, H. A., Benbenishty, R., Marachi, R., & Rosemond, M. (2005). School safety interventions: Best practices and programs. *Children & Schools*, 27(1), 17-32

Policy Analysis-Summary

- There are many bullying programmes available. Contextual factors may be important because not all bullying programmes transfer successfully. There is great promise in the DFE Sheffield Bullying Project because of its contextualized nature and its addition of peer support to the Olweus Bullying Prevention programme.
- Meta-analyses and systematic reviews confirm that school climate is a critical factor in all school violence prevention programmes. Both the Positive Behaviour Interventions and Supports and the School-Wide Information System are useful interventions which explicitly focus on improving school climate.
- School climate appears a useful target for intervention in Trinidad and Tobago and this should be considered in current school based management initiatives.
- The school physical environment and school safety strategy are both components of school climate interventions and hold significant promise. This might be especially so because of the size of some campuses and the lack of consistency in policy.

School Aspect	Violence Bullying	School Climate
Theory	Bullying programmes work best when there is a clear and holistic theoretical foundation, whole school approach with an ecological perspective, positive school climate, leadership involvement, staff training, emphasis on social emotional and character development, developmentally appropriate, and coordinated	Meta-analyses point towards the following - School context variables have an important influence on students' fear of going to school as well as aggressive behaviour. Classroom factors also impinge on bullying. Both context and victimization impact on non-attendance. There is a protective role of school attachment and family involvement.
Exemplary Programme/s	DFE Sheffield Bullying Project (UK) based on the Olweus Bullying Prevention Programme (Norway). The Sheffield Bullying Project adds peer support, students meeting in groups and adaptation of the programme to the school context.	Safe, caring, participatory, and responsive school climates are critical to all school violence interventions. Building positive school climates are a component in Positive Behaviour Interventions and Supports (PBIS); School-Wide Information System (SWIS), and coordinated school health programmes (CSHPs). Positive Behaviour Interventions and Supports (PBIS) is a proactive approach to establishing the behavioural supports and social culture and is needed for all students in a school to achieve social, emotional and academic success. Attention is focused on creating and sustaining primary (school-wide), secondary (classroom), and tertiary (individual) systems of support+-.
Implementation/ Outcomes	The programme should be adapted to the context and outcomes explicitly evaluated. Policy, leadership, training and evaluation are critical.	Consistent measurement of school climate is critical.

School Violence Aspect	School Physical Environment	School Safety
Theory	This is an element of school climate. The physical environment is the space within which violence occurs. This space may be redesigned to lower violence. Crime prevention through environmental design (CPTED) is a multi-disciplinary approach to deterring criminal behaviour through environmental design. CPTED principles focuses upon (1) space design, (2) space use and circulation, (3) territorial features, and physical deterioration. Key processes are on anonymity, ownership, and investment.	This is an element of school climate and school violence, but further extends issue. School safety is framed from discipline and control policies and includes target hardening and zero-tolerance interventions. Target hardening makes the school building less attractive for violent or aggressive acts through metal detectors, cameras and architectural design features. Zero tolerance policies use severe and predetermined consequences for violent acts and ignore mitigating circumstances. The punishing effects of sanctions may lead to reduction of individual aggression.
Exemplary Programme/s	Not part of many interventions. Health Promoting School	Target hardening and zero tolerance. May be combined with psychoeducational programmes.
Implementation / Outcomes	Not normally considered in violence prevention interventions, however, might be useful in Trinidad and Tobago context.	Implementation and program evaluations will help judge effectiveness in Trinidad and Tobago context

Final Summary

- The four policy areas benchmarked suggest that significant progress is required to help Trinidad and Tobago successfully progress towards a high quality, equitable education system.
- The student assessment system is overly focused upon public examinations and policy on classroom assessment has been mostly neglected, even in the 2013 PCR.
- As a policy area, teacher education and preparation has been given some attention, but all areas have not received attention and the area is not a current focus.

Final Summary

- There has been some progress towards better and more informed evidence-informed practice, but principles have not been consistently applied and capacity remains low in the system.
- There is still need for more organized evidence on school violence. A full review from multiple independent evaluations is yet unavailable. There is also a lack of comprehensive evaluations and an absence of evidence-based interventions.
- In all policy areas, local policies are neither robust nor coherent. It is naïve to believe that that the current situation can facilitate Trinidad and Tobago's progress towards an equitable high performing system. Greater engagement with stakeholders led by evidence-based conversations is urgently required.