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# The External Validity of External Quality Assurance

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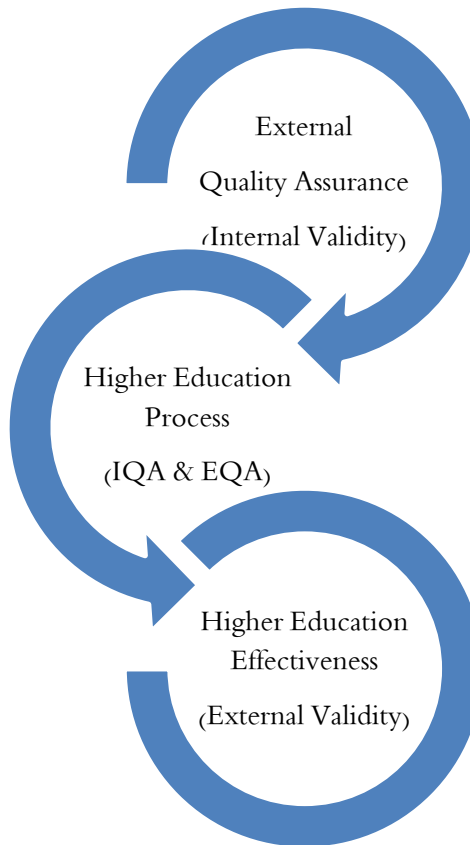
Keynote @ INQAAHE CONFERENCE

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- ❖ EQA Effects on HE Effectiveness
- ❖ Assessing the effectiveness of HE
- ❖ Assessing the effectiveness of EQA
- ❖ Construct validity approach to EQA external validity
- ❖ Empirical Model of EQA in HE
- ❖ 2007 INQAAHE guidelines of good practice
- ❖ Implications for EQAAs and INQAAHE



# Validating EQA Effects on HE Effectiveness



# How do we assess the HE process and effectiveness of HE?



- Ascertain the efficiency and effectiveness of HEI processes
  - ❖ Teaching & learning
  - ❖ Resources
  - ❖ Governance & management
  - ❖ Etc.
- Measure the outcome of the HE process
  - ❖ Employability, academic standards, etc.
  - ❖ External validation of the HE process
- Suitability of input and output
- Covered by program and institutional reviews  
(conducted by EQAAs)



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# How do we assess the effectiveness of EQA?

- Validating the EQA process (Internal Validity)
  - ❖ EQAA internal structure and processes
  - ❖ EQA process (review method, selection of reviewers, publication of results, etc.)
  
- Validating EQA outcomes or process instances (**External Validity**)
  - ❖ Validity and reliability of EQAA assessments
- EQAA internal validity covered by INQAAHE guidelines
- EQAA external validity largely ignored beyond the institutional memory of review Boards



- Type 1 (false positives) and Type 2 (false negatives) errors
- Lack of evidence of the impact of EQA on HE effectiveness
- Distorting effects of EQA on HE effectiveness (e.g. Ranking game)



# Do we need to assess the validity of EQA?

- EQAAs require HEIs to validate their HE process through outcome measures!
  - ❖ EQAAs should likewise validate the outcome of their EQA process
  - ❖ Does EQA impact HE effectiveness?
  - ❖ Arab region US News Rankings seem to indicate otherwise!

## ➤ 2 types of validity

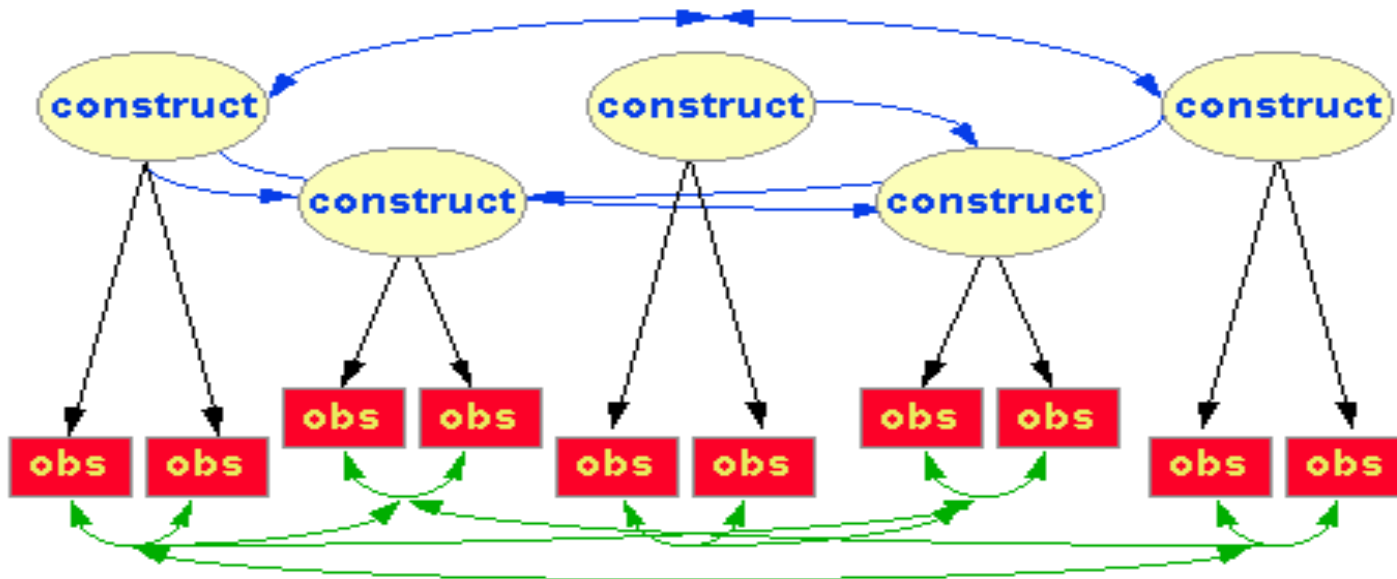
- ❖ Validity of governance and methodology of EQA (**internal**)
- ❖ Validity of the EQA process in specific instances (**external**)

- The missing QA: validity of review results which will be examined through research validation process



## The Nomological Network

a representation of the concepts (constructs) of interest in a study,



...their observable manifestations, *and the interrelationships among and between these*





- ✓ the researcher in framing the theory (Construct level)
- ✓ the measuring instrument in empirically tapping the domain of the theoretical construct (observable level)
- ✓ the conditions of measurement (research context)
- ✓ the respondent in ‘providing answers’
- ✓ the researchers’ interpretation of scores in relation to the original hypothesis



- Framing the theory of QA
  - What is the QA theory for external reviews?
  - Benchmarking approach to developing QA review methodology is **atheoretical**
  - Need to frame an explicit theory of QA to serve as a validating ‘normative’ structure for operating model
  - Review indicators should disentangle causes and effects and results and outcomes
- Review items to tap the theoretical domain of the model constructs
  - Review items are observables that tap the domain of QA theoretical constructs
  - Items, as observables of the indicator, should cluster with other items that sample the theoretical domain of the indicator



➤ Develop a theoretical model of EQA

➤ Assignment of assessment items to model constructs (Indicators)

❖ Dominant approach

- Assignment of items to indicators (constructs) is usually done at face validity
- Forcing of theoretical categorizations (Indicators) by EQAAs

❖ Alternative approach

- Empirical keying to do the assignment of items to indicators (e.g. Qsort, factor analysis, etc.)
- Derive and update indicators from the empirical clustering of items
- Initial body of pilot data collected to finalize constructs
- Further validation done periodically on a fresh body of data



## • Objectives

- Validation of items
- Coherent measurements within each construct
- Eliminating irrelevant/redundant items and reallocating misplaced ones

## • Decision on loadings (factor analysis)

- Item irrelevant if it does not load onto any of the constructs
- Construct missing if several items load together with no construct designation



# Loading of program review indicators onto constructs: Curriculum

Curriculum	Student admissions	Teaching & Learning	Academic standards of graduates	Curriculum
1.1 The program has clear aims				✓
1.2 Intended learning outcomes are expressed in program and course specifications				✓
1.3 The syllabus (curricular content) is accurately documented in terms of breadth, depth, relevance, appropriate references to current and recent professional practice and published research findings				✓
1.4 The curriculum is organised to provide academic progression year-on-year, suitable workloads for students, and balances between knowledge and skills, and between theory and practice.				✓
1.5 Teaching and learning approaches are adopted which support the attainment of aims and intended learning outcomes		✓		
1.6 Suitable arrangements are in place, and known to all faculty and students, to assess students' achievements		✓		



# Loading of program review indicators onto constructs:

## Efficiency of resources

Resources	Student admissions	Faculty Resources & Qualifications	Student Services & support	Facilities	Quality management & policy planning
2.1 The profile of admitted students matches the program aims and available resources.	✓				
2.2 Faculty members and others who contribute to the program are adequate in quantity and in the range of academic qualifications and professional experience they offer.		✓			
2.3 Physical and material resources are adequate in number, space, style and equipment				✓	
2.4 The students make appropriate use of the available resources.			✓		
2.5 Arrangements are in place for orienting newly admitted students and for ensuring that all students receive appropriate continuing guidance and support			✓		
2.6 The ratios of admitted students to successful graduates – including rates of progression, retention, year-on-year progression, length of study and first destinations of graduates – are sound					



# Loading of program review indicators onto constructs: Academic standards of graduates

Academic Standards	Teaching & Learning	Academic standards of graduates	Student Services & support	Quality management & policy planning
3.1 Academic standards are clearly stated in terms of aims and intended learning outcomes for the program and for each course.				√
3.2 Benchmarks and internal and external reference points are used to determine and verify the equivalence of academic standards with other similar programs in Bahrain and worldwide.				√
3.3 The achievements of graduates meet program aims and intended learning outcomes, as expressed in final results, grade distribution and confirmation by internal and external independent scrutiny.		√		
3.4 The achievements as seen in samples of students' assessed work are equivalent to similar programs in Bahrain and worldwide.		√		



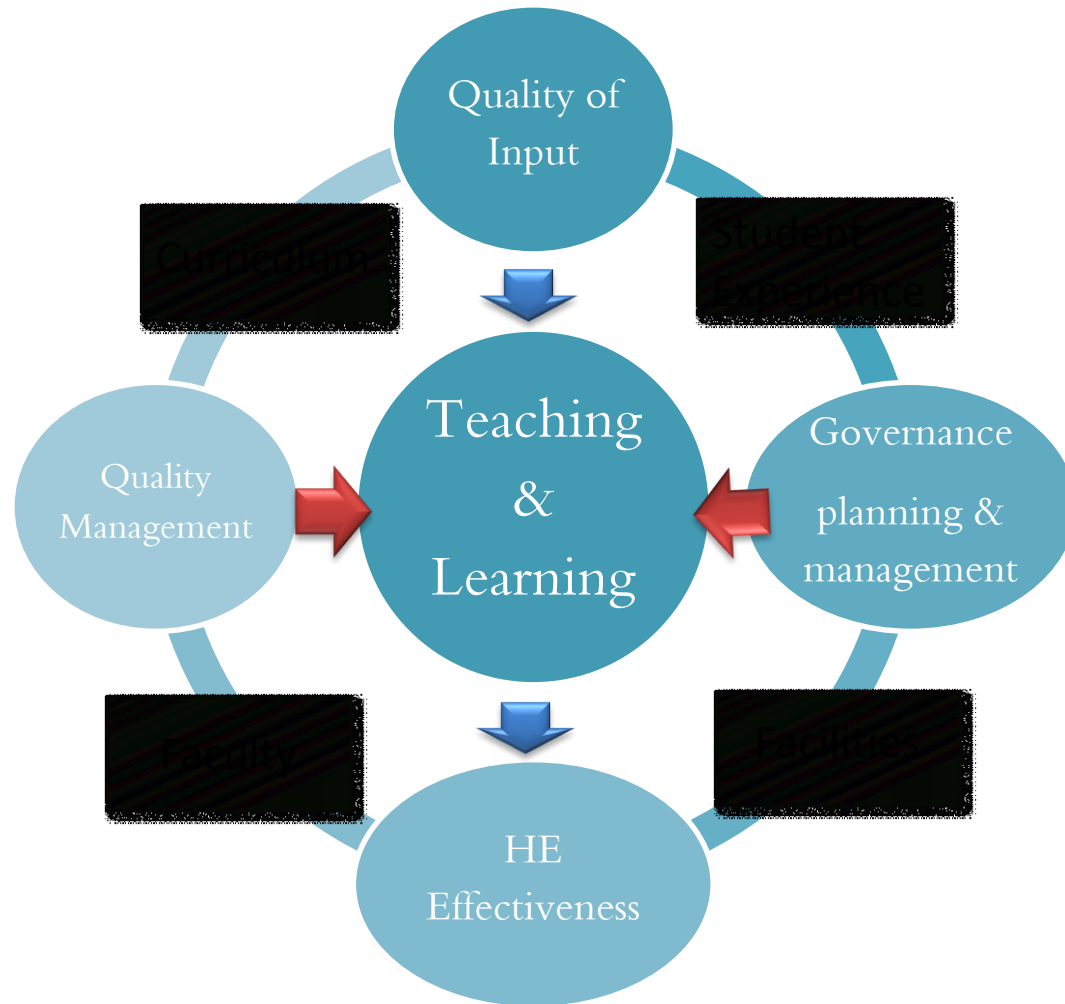
# Loading of program review indicators onto constructs:

## Quality management

Quality Management	Faculty Resources & Qualifications	Student Services & support	Facilities	Quality management & policy planning
4.1 The institution's policies, procedures and regulations are applied effectively.				√
4.2 There are arrangements for regular internal review and reporting.				√
4.3 The structured comments collected from, for example, students' and other stakeholders' surveys are analysed and the outcomes are used to inform decisions and made available to stakeholders.				√
4.4 Improvement planning and other mechanisms for continuing improvement are demonstrated				√
4.5 The arrangements for identifying continuing professional (staff) development needs and meeting them are effective.				√
4.6 There are adequate records of the development and conduct of the program, including the impact of the most recent improvement plan(s).				







## ❖ Structural validity

- Primary path (direct cause-effects)
- Path effects (indirect cause effects)
- Moderator effects
- Alternative structural configurations of the model

## ❖ Theoretical impossibilities

## ❖ External validation of EQA model

- Model relationships are supported by data collected through review tools
- Review results are aggregated to test model

## ❖ Without external validation, EQA results are not deemed valid



- Reviews conducted through validated indicators are more likely to be valid
- Validation of review methodology is a MUST for claiming validity of reviews
- No need for systematic validation but only for a periodical check on the validity and reliability of EQA measurements
- Sampling can be used to ascertain validity of results across reviews
- Periodical validation can uncover other sources of threat to validity



- Review conditions
- Authenticity of responses
- Conflict between reviewers' QA model and EQAA review model
- Reviewers' intrusiveness into the fact-finding setting
  - What are the rules of engagement?
  - Are deception tactics allowed?
- Accuracy and truthfulness of reviewers' renditions
- Above threats dealt with through manipulating 'experimental setting'



## ➤ Methodological solutions to tackle threats to validity

- Multi-method EQA
- Detailed procedures and protocol to conduct visit
- Use of validated questionnaires and other quantitative methods for some measurements to enhance reliability and reduce variability across assessments
- Assessment remains a qualitative artifact

## ➤ Validate past results within validated model

- Use past reviews to test model
- Identify possible type 1 and type 2 errors



- ❖ “Promoting public accountability of EQAAs”
  - Reporting public information
  - Research on the validity and reliability of EQAA reviews
  
- ❖ EQA internal validation addressed through
  - 1. Governance of the EQAA
  - 2. Resources
  - 3. QA of the EQAA
  - 8. EQAA’s Evaluation of the Institution and/or Program
  
- ❖ Reliability of review results
  - 9. Decisions (EQAA decisions must be impartial, rigorous, thorough, fair, and **consistent**)
  - Does not advocate a reliability enforcement mechanism



## ❖ Reference to external validation

- 3. “The EQAA conducts internal self–review of its own activities, including consideration of its own **effects and value**.”
- “Effect and value” left vague with no specific methodological or fact–finding requirement
- 3. “**The review includes data and analysis**” but does not specify about what
- 9. “Decisions” Examples of sources of evidence: “Representative samples of decisions for similar higher education institutions”
- Reliability is again suggested here

## ❖ No clear validity and reliability process is suggested



- ❖ Validation of review methodology and results
  - Empirical validation of review model and indicators
  - Periodical review and publication of validation results
  - Research based on the QA model to ascertain the impact of EQA on HE
  
- ❖ Integration of requirements of external validation within INQAAHE guidelines of good practice
  
- ❖ EQA has yet to make its business case. How it impacts higher education!







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# Thank You

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