Aligning Content, Teaching and Assessment in Tertiary-Level Language Education

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4th EALTA Conference, Sitges, Spain
June 15 – 17, 2007

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Goal of Project

This work-in-progress deals with a research & development on-going project in language planning. The goal of the project is to explore procedures which help to plan and develop effective English language courses that address the relevant needs in order to suggest appropriate teaching and study practices, and to construct related test specifications. The context is higher education, the National Defence University in Finland. The alignment of *content, teaching* and *assessment* is a major concern.

Context of Project

- Language-in-education planning
- Developing a model for a system(at)ic approach
- Language education for commissioned officer trainees

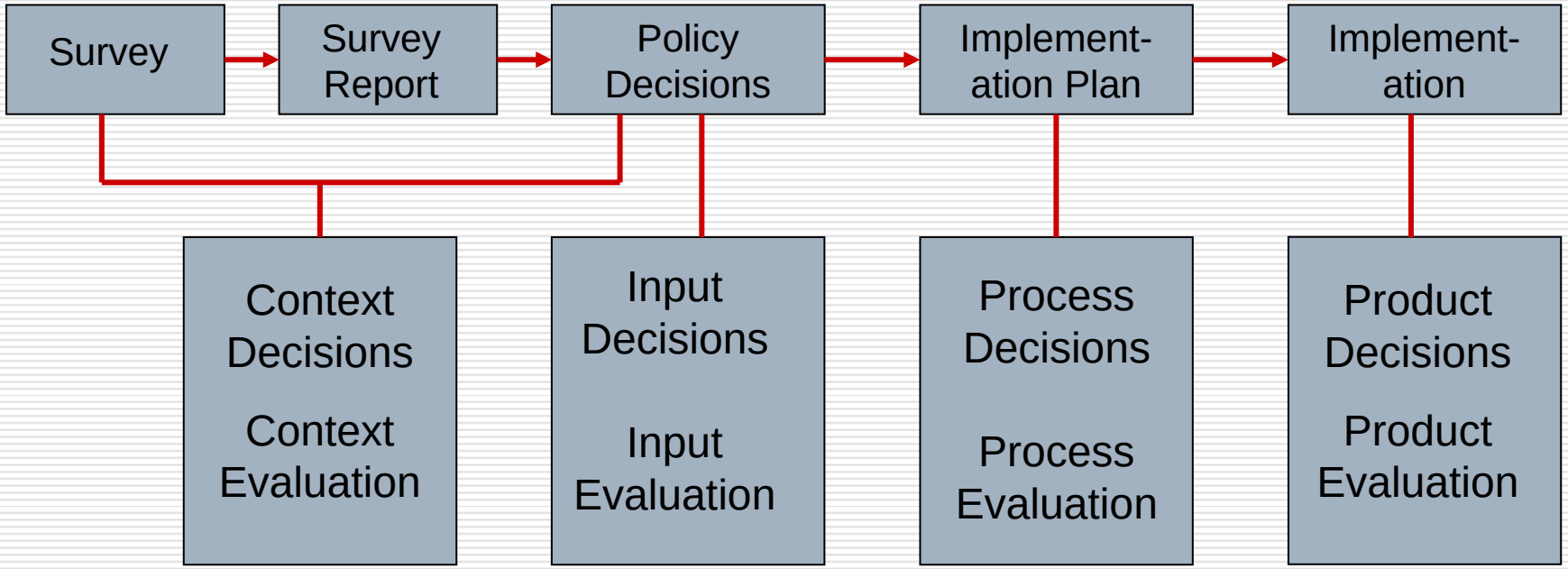
CIPP – Model of Evaluation (Stufflebeam 1975, 2003)

- The field of language policy and planning needs to draw on a range of disciplines in order to plan, implement and evaluate language policies that respond to the needs of various types of stakeholders.

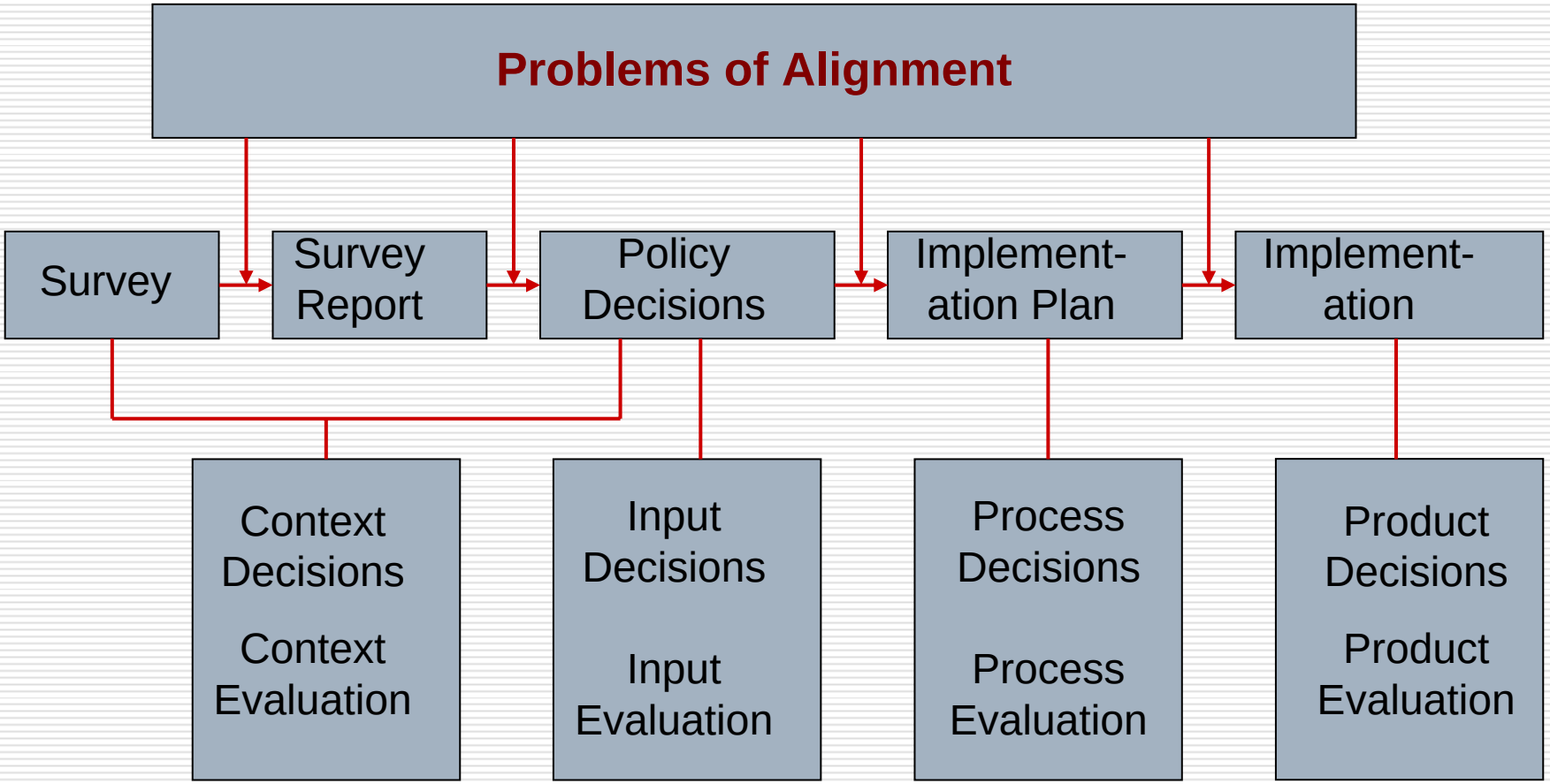
- The CIPP-model created by Daniel Stufflebeam addresses more systematically than any other corresponding model the vital linkage between decision-making and evaluation.

- The context evaluation portion of this project has been explored in several rounds of needs analyses. At present the input, process and product aspects are being addressed.

CIPP – Model of Evaluation (Stufflebeam 1975, 2003)



CIPP – Model of Evaluation (Stufflebeam 1975, 2003)

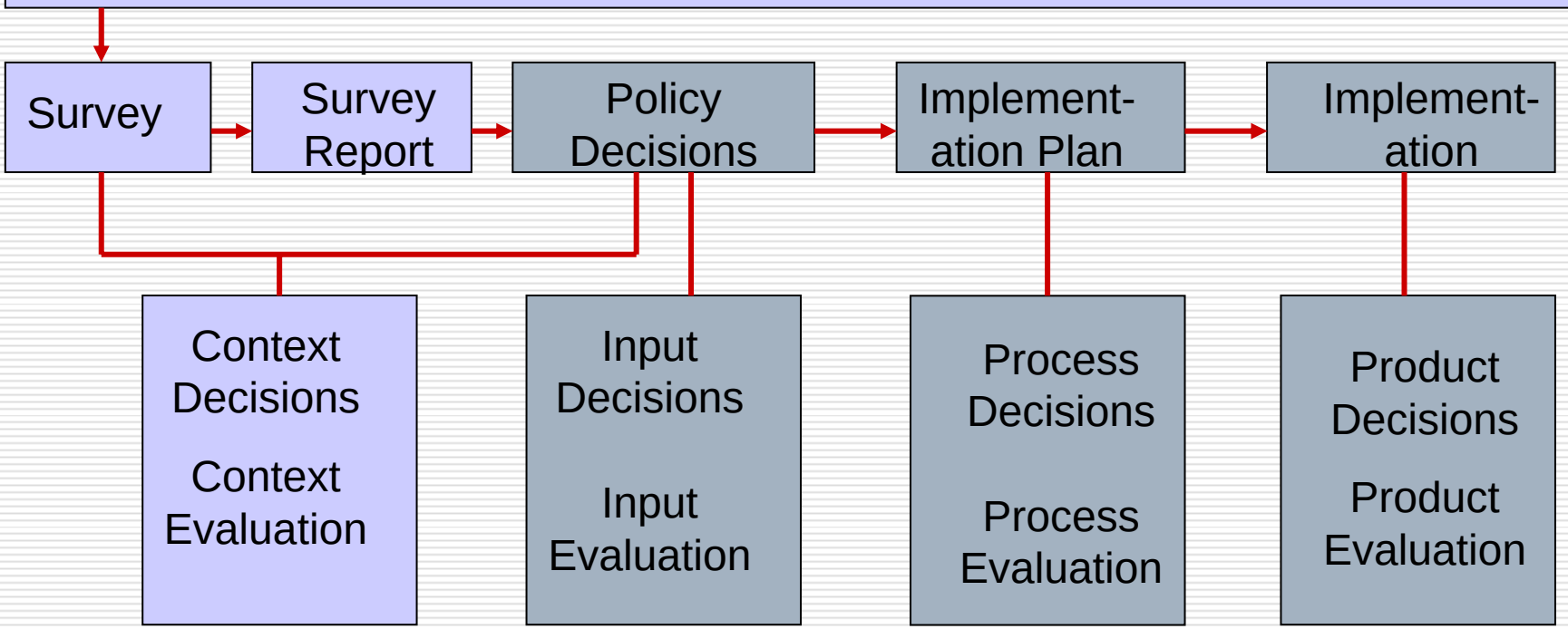


Problems of Alignment

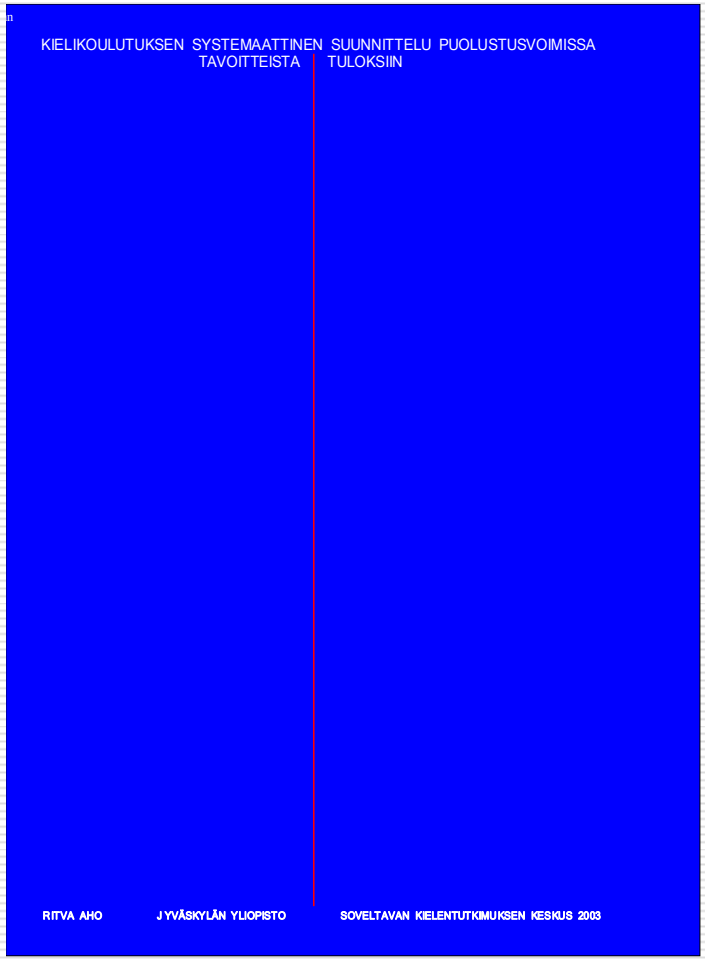
- Aligning content, teaching and assessment in language education is needed for coherent action but it is rather problematic.
- Even for a specific subject matter at one grade level true alignment is a major undertaking.
- The notion of ”aligned system” is only a time-bound one and the aligned system will change with the changing emphases, resources and time.

Previous Work

- Systematic Language-in-Education Planning - The Finnish Defence Forces in Focus (2003)
- Operational English Proficiency of Commissioned Officers - A New Weapons System for the Finnish Defence Forces (2006)
- Needs Survey Instrument linked to the CEFR (2006)



Systematic Language-in-Education Planning: The Finnish Defence Forces in Focus



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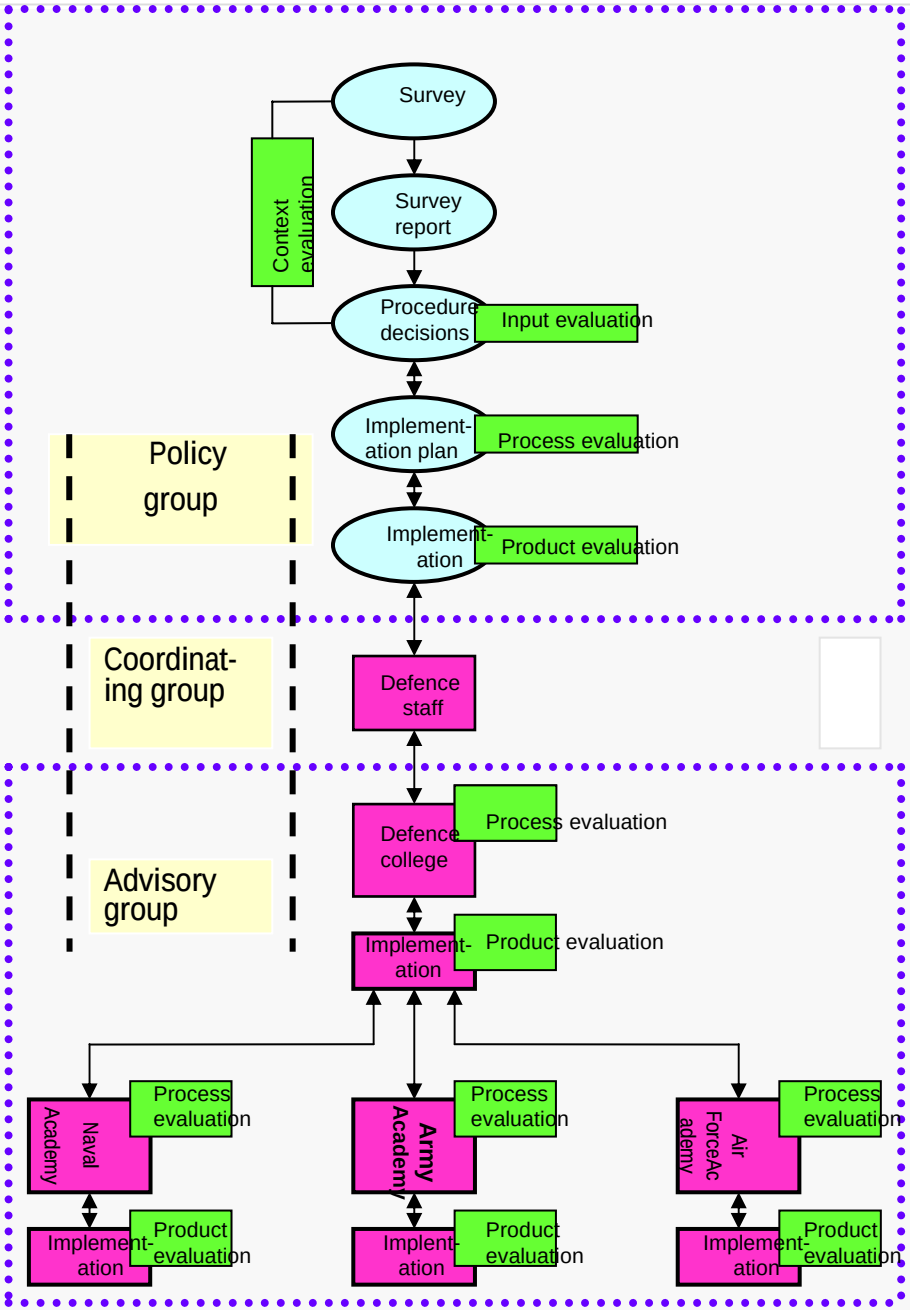
Model of Systemic Language Education for Officer Trainees in Finland



Operational English Proficiency of Commissioned Officers. A New Weapons System for the Finnish Defence Forces

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Operational English Proficiency of Commissioned Officers

A New Weapons System for the Finnish Defence Forces

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EALTA Conference in Krakow,
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Needs Survey Instrument linked to the CEFR

Figure 13 shows the Listening Comprehension-part of the needs survey instrument in which 239 officer respondents assessed the level of English proficiency required at work linking the language use situations to the CEFR. In the officers' ratings the median in LC- situations was B2.

The medians printed in red were the CEF-ratings assessed by 17 language teaching experts (Med B2). Average Spearman correlation between expert raters: Rho ij = 0.71

Needs Survey Instrument linked to the CEFR

		Situation	CEF levels					
LISTENING	1.	Understanding orders and instructions	A1	A2	**B1**	B2	C1	C2
	2.	Understanding discussions in meetings, negotiations and seminars etc.	A1	A2	B1	**B2**	C1	C2
	3.	Understanding speech on the phone	A1	A2	**B1**	B2	C1	C2
	4.	Understanding speech in radio communication procedure	A1	A2	**B1**	B2	C1	C2
	5.	Understanding others in social conversations	A1	A2	**B1**	B2	C1	C2
	6.	Understanding radio programmes and news	A1	A2	B1	**B2**	C1	C2
	7.	Understanding law texts and international law	A1	A2	B1	B2	C1	**C2**
	8.	Understanding native speakers' various accents	A1	A2	B1	B2	**C1**	C2
	9.	Understanding speech in doing business in general, e.g. when travelling	A1	A2	**B1**	B2	C1	C2

Average Spearman correlation between expert raters: Rho ij = 0.71

Further objective is to explore

what contributions can be derived from

- principles related to task-based teaching and assessment
- methods of cognitive task analysis or genre analysis
- integration of potentially domain-independent cognitive demands and content-dependent conceptual structures and models of learning,
- model-based assessment
- criterion-referenced performance assessment based on characteristics of expert performance
- linkage to the CEFR (Common European Framework of Reference for Languages)

Cognitive Task Analysis (CTA)

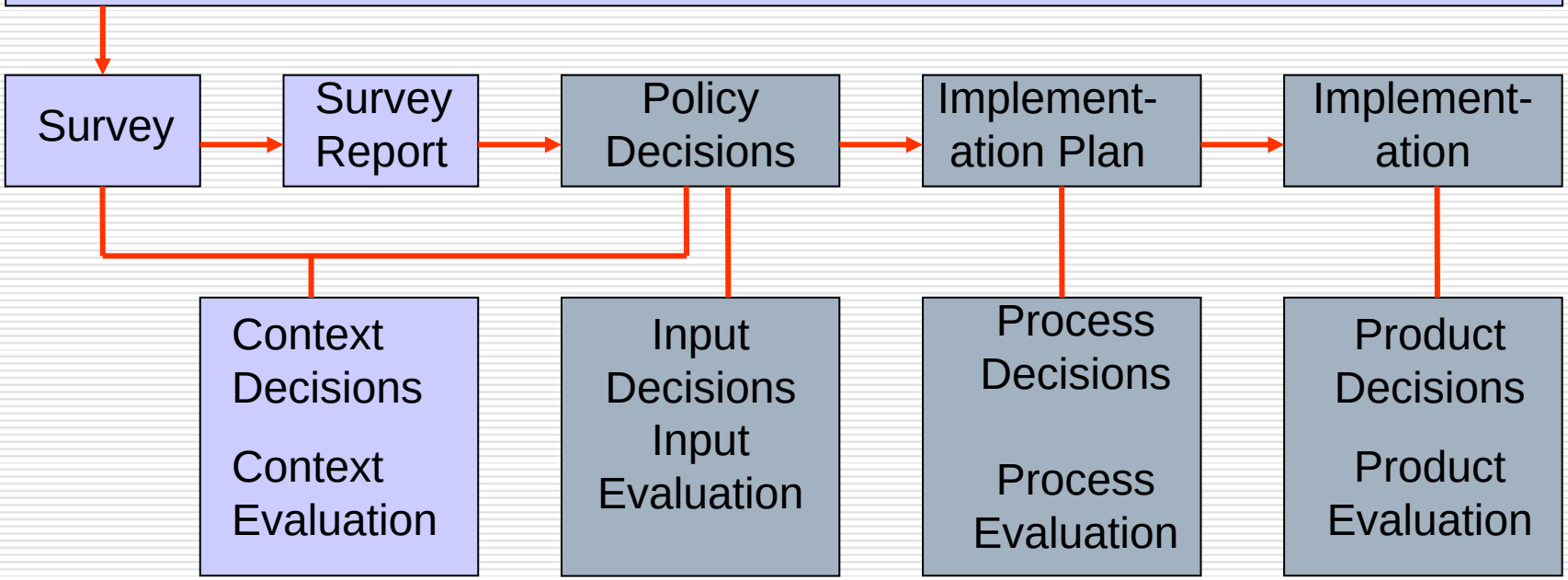
- The purpose of the cognitive task analysis is to capture the way the mind works, to capture cognition. This process concerns the methods for studying thinking and reasoning while performing real-world tasks in complex and dynamic work settings, in this case officers' working contexts.

- The sheer number and variety of knowledge elicitation methods is notable. Four knowledge elicitation categories, interview, observation, textual and psychometric, include as many as 75 different methods (Crandall, Klein & Hoffman)

Cognitive Task Analysis (CTA)
e.g. Crandall, Klein & Hoffman (2006)

Knowledge elicitation categories and methods:

- Interview (33 methods)
- Observation (17 methods)
- Textual (2 methods)
- Psychometric (23 methods)



Some selected methods

Interview

- Applied Cognitive Task Analysis
- Critical Decision Method
- Critical Incident Technique
- Distinguishing goals
- Job Analysis
- Questionnaires

Some selected methods

Observation

- Active participation
- Activity sampling
- Cognitive Function Model
- Job analysis
- Shadowing another
- Unstructured interview

Some selected methods

Textual

- Content analysis
- Management Oversight Risk Tree techniques

Some selected methods

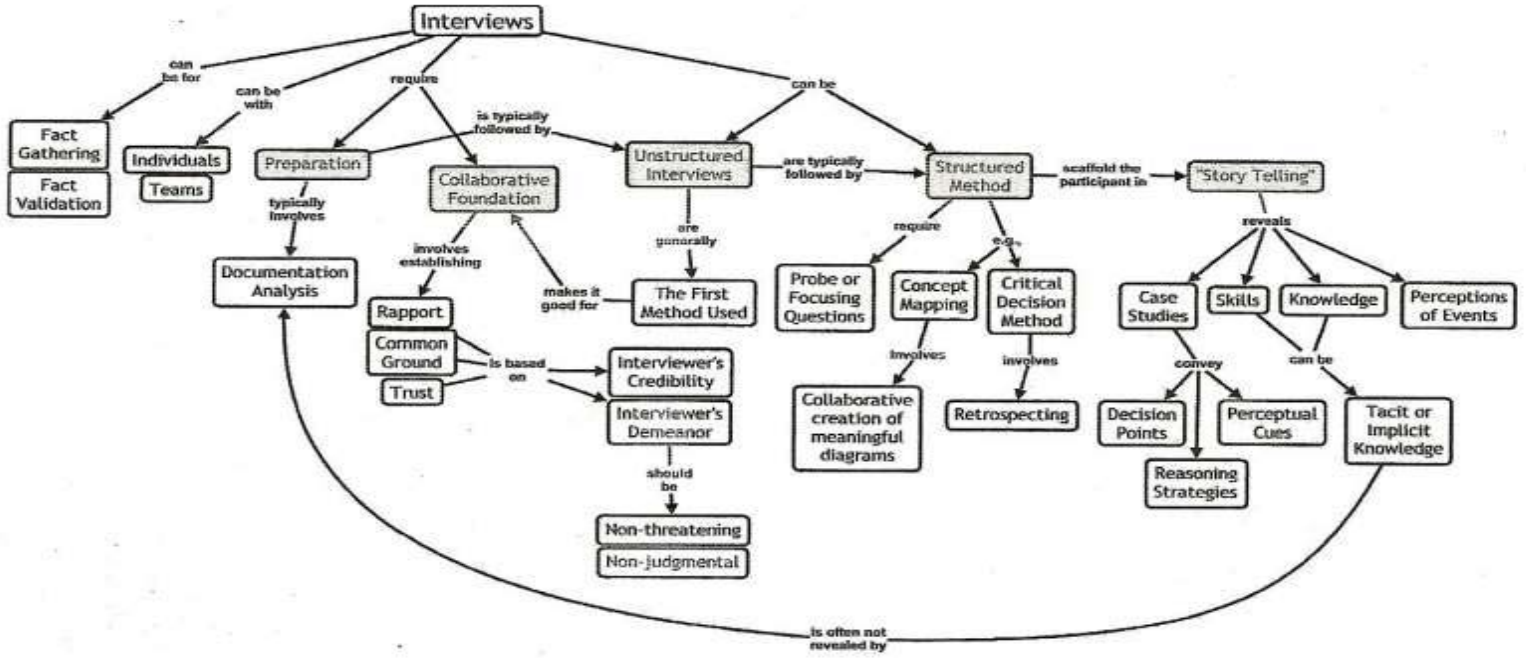
Psychometric

- Concept listing
- Eliciting estimations of probability and utility
- Free association

Concept Map

- Another technique, Concept Mapping, is coming to be used widely as a method for both eliciting and representing the knowledge of domain practitioners.
- An example of this, taken from Crandall, Klein and Hoffman (Fig. 22) shows a knowledge map where are shown the key concepts, subordinating relations, frame of reference and the linking verbs.
- Accurate analysis of the content domains are part of the criterion referenced assessment and thus of great significance.

Concept Map

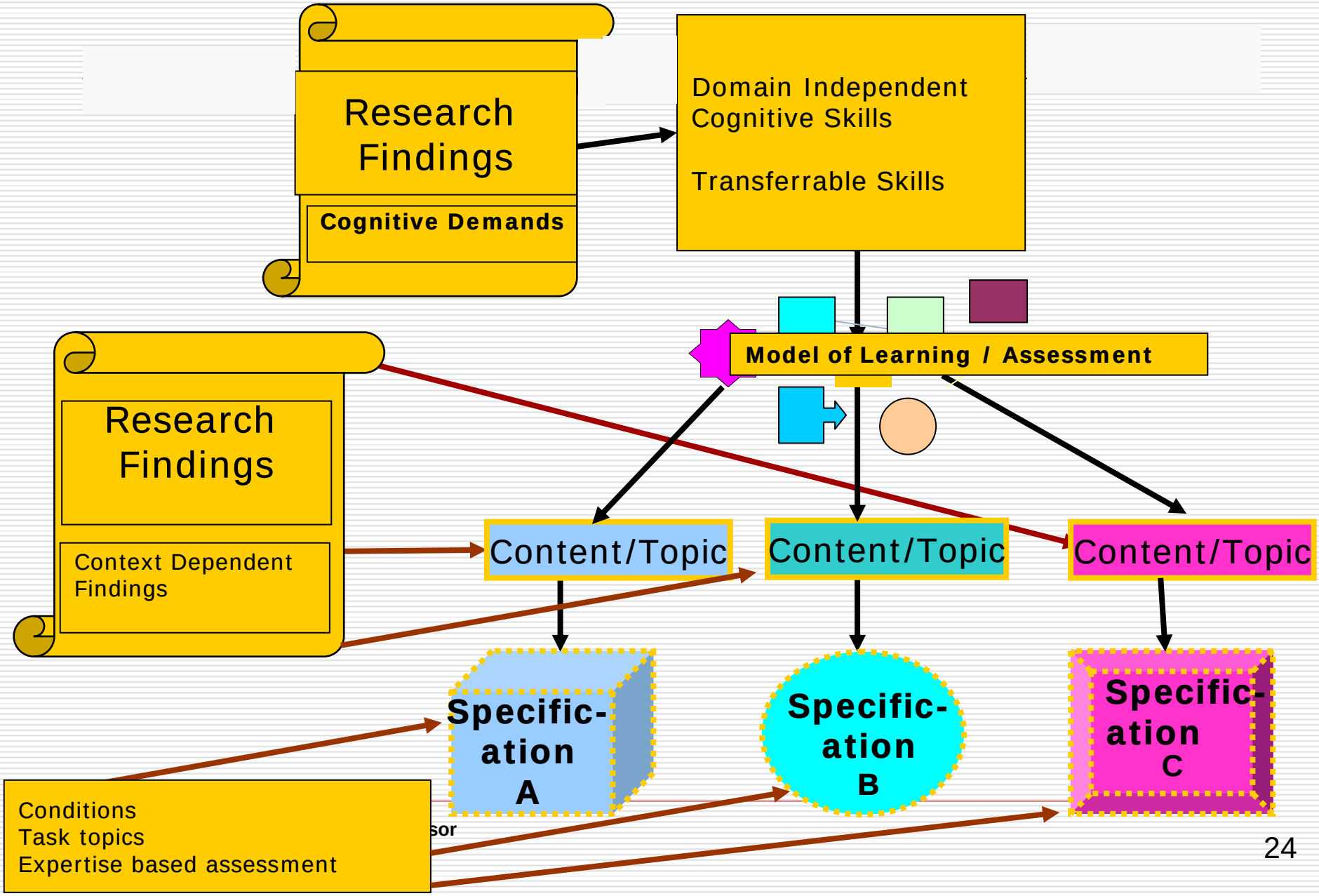

Interviews
can be for
can be with
require
can be
Fact Gathering
Fact Validation
Individuals
Teams
Preparation
is typically followed by
Collaborative Foundation
Unstructured Interviews
are typically followed by
Structured Method
scaffold the participant in
"Story Telling"
typically involves
Documentation Analysis
involves establishing
Rapport
Common Ground
Trust
is based on
Interviewer's Credibility
Interviewer's Demeanor
makes it good for
The First Method Used
are generally
should be
Non-threatening
Non-judgmental
require
e.g.
Probe or Focusing Questions
Concept Mapping
Critical Decision Method
involves
involves
Collaborative creation of meaningful diagrams
Retrospecting
reveals
Case Studies
Skills
Knowledge
Perceptions of Events
convey
can be
Decision Points
Perceptual Cues
Reasoning Strategies
Tacit or Implicit Knowledge
is often not revealed by

Model Based Assessment

The next generation of system design is integrating cognition, assessment and learning. The major components of the model based assessment are

- domain-independent and domain specific cognitive demands of the task or test
- detailed representation of the content map that shows the ontology of the subject matter and
- the criteria to judge performance derived from expert performance

From Research to Assessment: Model Based Assessment



Domain-Independent Cognitive Skills

- problem solving and task management
- communication skills
- collaborative work skills
- metacognitive skills
- intercultural competence
- argumentation skills
- compensation-, negotiation-, and other strategies

Domain Specific Cognitive Demands

- In addition to domain specific research findings relevant to learning another major element of the model is the detailed representation of the content domain as a concept map.

- The concept maps present both content elements to be learnt and hierarchies or lateral relationships.

Creating Specifications

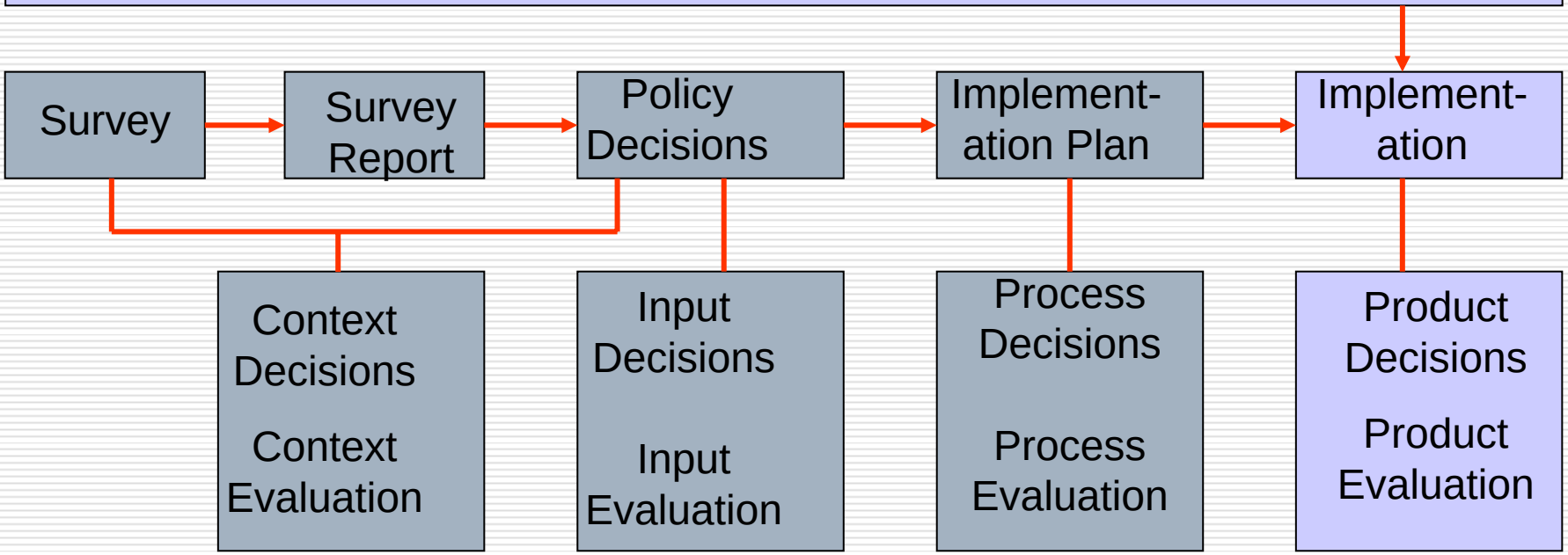
Creating specifications for education systems and reporting systems provides a relatively efficient way to develop items and a strategy to translate standards into assessments.

The work done by CRESST has had a major impact on our thinking.

Model Based Assessment

A coherent assessment system should

- provide adequate representation of target construct or domain
- provide a conceptual link among goals, instruction, measures, and subsequent actions
- impact positively on instructional practice
- support fairness



Advantages

Advantages of assessment design models of this kind are that they emphasise

- comparability
- transferability
- reasonable cost
- technical quality
- fairness and
- utility for instruction.

Advantages

The most important point is to find ways of aligning

- content
- teaching and
- assessment in language education

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