# Models of Curriculum Evaluation

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# **Models of Curriculum Evaluation**

- **1. Concept of Model**
- **2. Need for Models**
- **3. Models of Curriculum Evaluation** 
  - 1. Tyler's Model
  - 2. CIPP Model
  - 3. Stake's Model
  - 4. Roger's Model
  - **5. Scriven's Model**
  - 6. Krikpatricks model
- 4. Criteria for judging evaluation studies

Concept of a model **Theory: Explains a process** (Why?) Model **Describes a process** (How?) Model is a representation of reality presented with a degree of structure and order.





process

# Why do we need a model for curriculum evaluation?

To provide a <u>conceptual framework for</u> <u>designing</u> a particular evaluation <u>depending on</u> the specific <u>purpose</u> of the evaluation.

# 1. Tyler's Model (1949)

- Key Emphasis:
- **Instructional Objective**
- **Purpose:**

To measure students progress towards objectives

#### Method

- **1. Specify Instructional Objectives**
- 2. Collect performance Data

3. Compare performance data with the objectives/standards specified

# **Limitation of Tyler's Model**

1. Ignores process

2. Not useful for diagnosis of reasons why a curriculum has failed

# Tyler's Planning Model(1949)



What educational goals should the school seek to attain?

How can learning experiences be selected which are likely to be useful in attaining these objectives?

How can learning experiences be organised for effective instruction?

How can the effectiveness of learning experiences be evaluated?

# 2. CIPP Model (1971)

The CIPP model of evaluation concentrates on:

Context of the programme

Input into the programme

Process within the programme

Product of the programme

### **Focuses on Decision making**

	Intended	Actual
	Planning Decisions	Recycling Decisions
Ends	To determine objectives	To judge and react to attainments
	(Policy makers and	(Policymakers,Administrators
	Administrators)	Teachers, HODs and
		Principals)
	Structuring Decisions	Implementing Decisions
Means	To design procedures	To utilise control and refine
	(Administrators,	procedures
	Principals and HODs)	(Teachers,HODs and Principals)

## **Types of Decisions**

- Intended Ends(goals)
- Intended means(procedural designs)
- Actual means (procedures in use)
- Actual ends (attainments)

# CIPP

	Intended	Actual
ENDS	Context Evaluation Qn: What?	Product Evaluation Qn:Have we? Attainments
	Environment & Needs	Outcomes - both quality and significance
MEANS	Input Evaluation Qn: How? Procedural Designs Strategies & Resources	Process Evaluation Qn: Are we? Procedures in use Monitoring & implementation

### **Types of Evaluation**

- Context Evaluation
- Input Evaluation
- Process Evaluation
- Product Evaluation

### **Context Evaluation**

#### **Objective:**

- To determine the operating context
- To identify and assess needs and opportunities in the context
- To diagnose problems underlying the needs and opportunities *Method:*
- By comparing the actual and the intended inputs and outputs *Relation to decision making*:
- •For deciding upon settings to be served
- For changes needed in planning

Needs of Industry, Society

Future Technological developments

Mobility of the students

### **Input Evaluation**

**Objective:** To identify and assess system capabilities, available input strategies and designs for implementing the strategies

*Method:* Analysing resources, solution strategies, procedural designs for relevance, feasibility and economy

**Relation to decision making:** For selecting sources of support solution strategies and procedural designs for structure changing activities

- Entry behavior of students
- Curriculum Objectives
- Detailed contents
- Methods and media
- Competencies of teaching faculty
- Appropriateness of teaching / learning resources

#### **Process evaluation:**

**Objectives:** To identify process defects in the procedural design or its implementation

*Method:* By monitoring the procedural barriers and remaining alert to unanticipated ones and describing the actual process

**Relation to decision making:** For implanting and refining the programme design and procedure for effective process control

#### Feedback to judge

- The effectiveness of teaching –learning methods
- Utilisation of physical facilities
- Utilisation of teaching learning process
- Effectiveness of system of evaluation of students performance

#### **Product evaluation:**

**Objectives:** To relate outcome information to objectives and to context input and process information

# *Method:* Measurement Vs Standards interpreting the outcome

**Relation to decision making:** For deciding to continue, terminate, modify, build or refocus a change of activity.

- Employability of technician engineers
- Social status of technician engineers
- Comparability of wage and salary structures
- Job adaptability and mobility

### **STUFFLEBEAM'S CIPP Model(1971)**

Context Input Process and Product evaluation

- Key Emphasis : Decision-making
- Purpose

- : To facilitate rational and continuing decision-making
- Strengths
- : a) Sensitive to feedback
  - **b)** Rational decision making among alternatives

- Evaluation activity
- : Identify potential alternatives, set up quality control systems

#### Limitation's of CIIP Model

- 1. Over values efficiency
- 2. But undervalues students aims

#### **CIPP View of Institutionalized Evaluation**



#### **CIPP** approach recommends...

- Multiple observers and informants
- Mining existing information
- Multiple procedures for gathering data; cross-check qualitative and quantitative
- Independent review by stakeholders and outside groups
- Feedback from Stakeholders

## 3. STAKE's MODEL (1969)

Antecedent is any condition existing prior to teaching and learning which may relate to outcome.

Transactions are the countless encounters of students with teacher, student with student, author with reader, parent with counsellor

Outcome include measurements of the impact of instruction on learners and others





#### **ANTECEDENTS**

- Conditions Existing prior to Curriculum Evaluation
  - Students interests or prior learning
  - Learning Environment in the Institution
  - Traditions and Values of the Institution

#### TRANSACTIONS

Interactions that occur between:

- TEACHERS STUDENTS
- STUDENTS CURRICULAR MATERIALS
- STUDENTS EDUCATIONAL ENVIRONMENT

TRANSACTIONS = PROCESS OF EDUCATION

#### OUTCOMES

- Learning outcomes
- Impact of curriculum implementation on
  - Students
  - Teachers
  - Administrators
  - Community
- Immediate outcomes Vs Long range outcomes

#### Three sets of Data

- 1. Antecedents
  - Conditions existing before implementation
- 2. Transactions
  - Activities occurring during implementation
- 3. Outcomes
  - Results after implementation
  - Describe the program fully
  - Judge the outcomes against external standards

### STAKE's Model

### Key Emphasis:

Description and judgement of Data

#### Purpose:

To report the ways different people see curriculum

Focus is on Responsive Evaluation

- 1.Responds to audience needs for information
- 2. Orients more toward program activities than results
- 3. Presents all audience view points(multi perspective)

### Limitations:

- 1.Stirs up value Conflicts
- 2.Ignores causes

### 4. KAUFMAN ROGER'S MODEL

#### **Need Assessment**

Where are we now? Where are we to be?

Discrepancy
Discrepancy between current status and Desired status

- Discrepancies should be identified in terms of products of actual behaviours (Ends)
- Not in terms of processes (Means)

#### **Deduction**

# The drawing of a particular truth from a general, antecedently known

Rule – examples

#### Induction

Rising from particular truths to a generalisation Examples - rules

#### **GOAL FREE EVALUATION (1973)**

Proponent : Michael Scriven

Goals are only a subset of anticipated effects

Intended effects

Effects

Unintended effects

#### **Roles of curriculum evaluation:**

Scriven differentiates between two major roles of curriculum evaluation: the "formative" and the "summative"

Formative evaluation – during the development of the programme

Summative evaluation – at its conclusion

#### **Formative evaluation**

It is carried out during the process of curriculum development

The evaluation results may contribute to the modification or formation of the curriculum

For example, results of formative evaluation may help in1.Selection of programme components2.Modification of programme elements

Summative evaluation – at its conclusion

#### **Summative evaluation**

It is carried out after offering the curriculum once or twice. Such an evaluation will summarise the merits and demerits of the programme.

A curriculum that operates satisfactorily over a period time may become obsolete.

To prevent this from occurring a permanent follow up of curriculum and quality control of the programme should be maintained

#### **Methodology:**

- 1. Determine what effects this curriculum had, and evaluate them whether or not, they were intended
- 2. Evaluate the actual effects against a profile of demonstrated needs
- 3. Notice something that everyone else overlooked or produce a novel overall perspective
- 4. Do not be under the control of the Management. Choose the variables of the evaluation independently.

#### **Criteria for judging evaluation studies:**

- 1. Validity
- 2. Reliability
- 3. Objectivity / Credibility
- 4. Importance / Timeliness
- 5. Relevance
- 6. Scope
- 7. Efficiency

## **Kirkpatrick's Four Levels of Evaluation**

In Kirkpatrick's four-level model, each successive evaluation level is built on information provided by the lower level.



ASSESSING TRAINING EFFECTIVENESS often entails using the four-level model developed by Donald Kirkpatrick (1994).

### According to this model, evaluation should always begin with level one, and then, as time and budget allows, should move sequentially through levels two, three, and four. Information from each prior level serves as a base for the next level's evaluation.

### **Level 1 - Reaction**

- Evaluation at this level measures how participants in a training program react to it.
- It attempts to answer questions regarding the participants' perceptions - Was the material relevant to their work? This type of evaluation is often called a "smilesheet."
- According to Kirkpatrick, every program should at least be evaluated at this level to provide for the improvement of a training program.

# Level 2 - Learning

 Assessing at this level moves the evaluation beyond learner satisfaction and attempts to assess the extent students have advanced in skills, knowledge, or attitude.



To assess the amount of learning that has occurred due to a training program, level two evaluations often use tests conducted before training (pretest) and after training (post test).

# Level 3 Evaluation - Transfer

- This level measures the transfer that has occurred in learners' behavior due to the training program.
- Are the newly acquired skills, knowledge, or attitude being used in the everyday environment of the learner?

### Level 4

### **Evaluation- Results**

 This level measures the success of the program in terms that managers and executives can understand -increased production, improved quality, decreased costs, reduced frequency of accidents, increased sales, and even higher profits or return on investment.



Level four evaluation attempts to assess training in terms of business results. In this case, sales transactions improved steadily after training for sales staff occurred in April 1997.

### **Methods for Long-Term Evaluation**

- Send post-training surveys
- Offer ongoing, sequenced training and coaching over a period of time
- Conduct follow-up needs assessment
- Check metrics to measure if participants achieved training objectives
- Interview trainees and their managers, or their customer groups