



Developing effectiveness indicators:

some examples



Agenda

1. Premises: the aim of the lesson
2. The issue of the day: students loan policies
3. The goals of student loans policy
4. The theory of change
5. Beneficiaries and target
6. Effectiveness indicators
7. ... to sum up



1. Premises: the aim of the lesson

The goal of this exercise
is to try to put in practise
what was said during the past lessons.

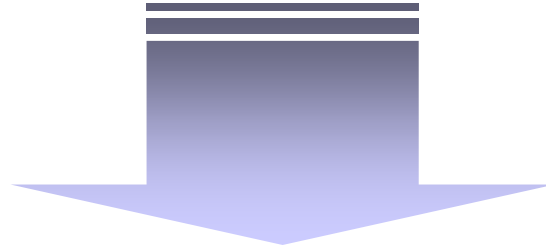
At the end of this exercise you should clearly understand:

1. which is the difference between beneficiaries and target
2. which are the main questions you should ask yourself in order to identify appropriate indicators
3. which is the logical path you have to follow in order to develop some effectiveness indicators



3. The goals of student loans policy

Which are the goals of a student loan policy?

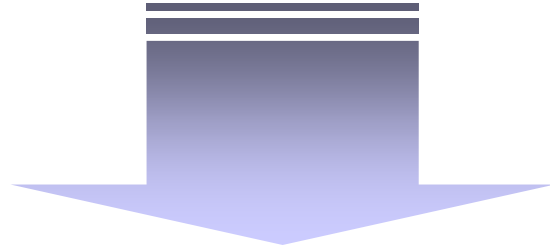


1. allow the access to higher education of students from disadvantaged background
2. increase of higher education funding
3. promotion of specific professional skills
4. secure financial student autonomy



3. The goals of student loans policy

Which are the goals of a student loan policy?



- 1. allow the access to higher education of students from disadvantaged background**
2. increase of higher education funding
3. promotion of specific professional skills
4. secure financial student autonomy.



4.1 The theory of change

Theory of change

1. poor students access

...from the lesson

The set of these conditions and assumptions is what we call the “theory of change” and the first task of the analyst is to identify it and evaluate it on two counts:

1. If it is clear enough
2. If it is reasonable and convincing

in our case ...

If we introduce a public programme of loans FOR POOR students,
then students from disadvantaged background could access to higher education



5.1 Beneficiaries and target

1. poor students access

...from the lesson

- The theory of change is important because it allows to identify:
 - Who are the beneficiaries of the policy: i.e who gains from the policy
 - Who are the target group of the policy: i.e. who will change his/her behavior because of the policy

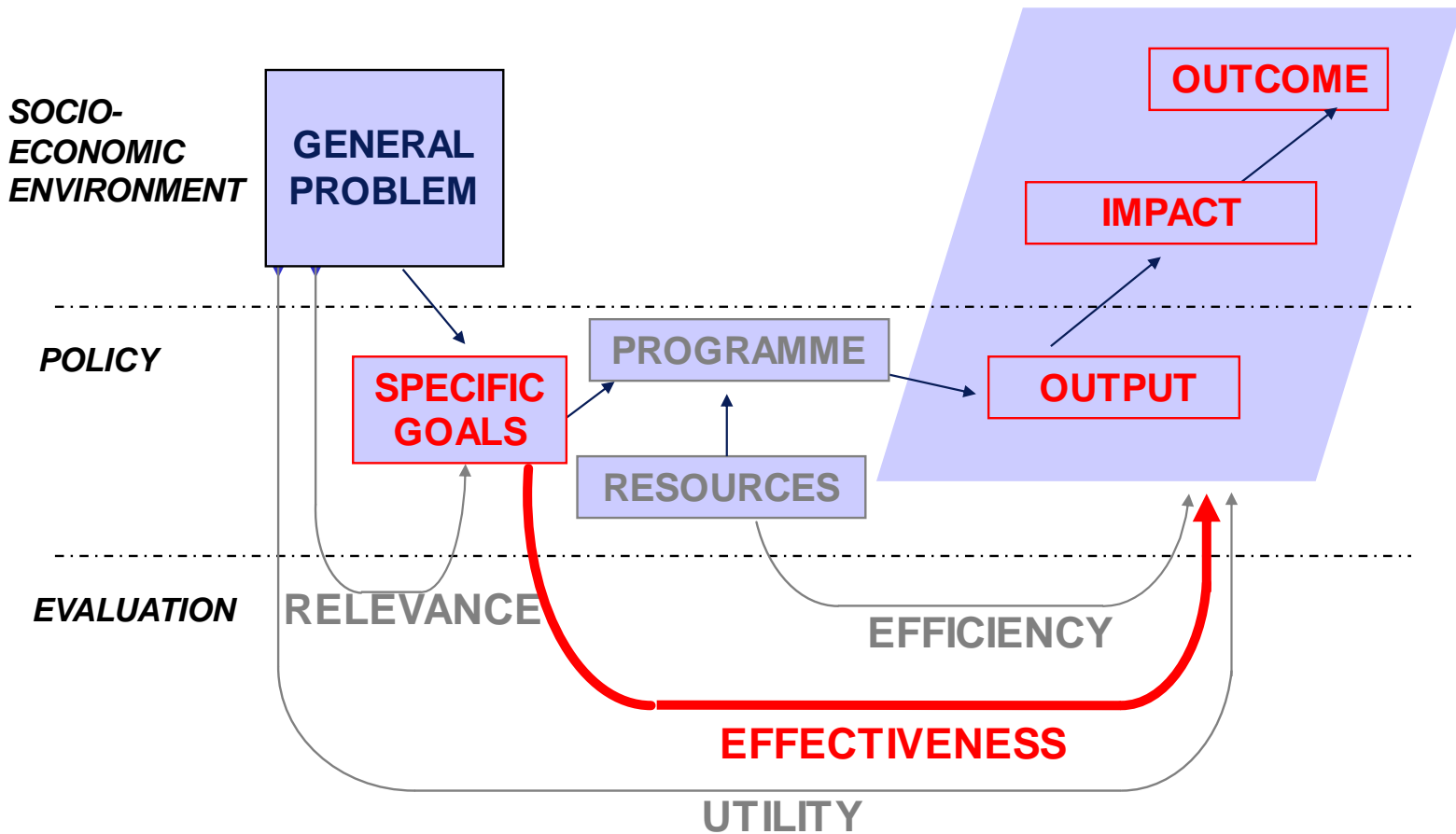
in our case ...

Beneficiaries: poor students

Target: poor students



6.1 Effectiveness indicators





6.1 OUTPUT

1. *poor students access*

...from the lesson

- The product of a policy
- What is the direct result of the activity of the implementors

Which is the output of the loan policy?



the output is the individual loan



6.1 effectiveness of policy output

1. poor students access

Which is the appropriate indicator?



the effectiveness of the policy output will be achieved if all needy students benefit from a loan



Policy is effective
if $I_{\text{OUTPUT}} \rightarrow 100\%$

$$I_{\text{OUTPUT}} = \frac{\text{number of needy students with a loan}}{\text{number of needy students}}$$



...from the lesson

- The transformation of the problem
- The change in the need or in the demand

Which is the IMPACT of the loan policy?



the outcome is
the rise in higher education access
by the poor students



Which is the appropriate indicator?



We need to measure that poor students enrol to the universities. That means that the opportunities to access tertiary education are equally spread between all social and income groups

Policy is effective
if $I_{\text{OUTCOME}} \rightarrow 0$



$$I_{\text{IMPACT}} = \text{GINI coefficient}_{\text{families income}} - \text{GINI coefficient}_{\text{income of student families}}$$



6.1 OUTCOME

1. *poor students access*

...from the lesson

THE OUTCOME IS THE
CHANGE IN TARGET
GROUP BEHAVIOUR

Which is the **OUTCOME** of the loan policy?



**The OUTCOME is the change in poor students
behaviours**

Which is the appropriate indicator?



In this case possibly the best solution is to directly ask them, through an appropriate survey, how relevant was the availability of the loan in the decision to enrol at university.

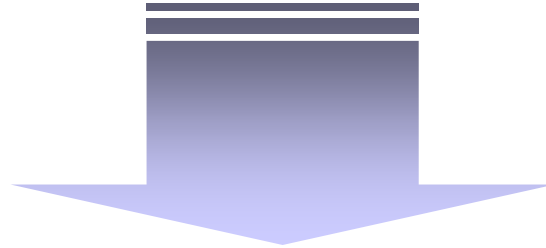
Nevertheless, an indirect indicator could be the proportion of needy students without a loan enrolled to university out of the total needy students enrolled.

If this figure is quite high it means that the programme is not effective in so far as is not able to “capture” its potential clients.



3. The goals of student loans policy

Which are the goals of a student loan policy?



1. allow the access to higher education of students from disadvantaged background
- 2. increase of higher education funding**
3. promotion of specific professional skills
4. secure financial student autonomy.



Theory of change

The set of these conditions and assumptions is what we call the “theory of change” and the first task of the analyst is to identify it and evaluate it on two counts:

1. If it is clear enough
2. If it is reasonable and convincing

in our case ...

If we introduce a public programme of students loans
(able to cover the tuition fees),
then the universities could raise the level of tuition fees,
increasing their total revenues
(and/or decreasing public higher education funds)



5.2 Beneficiaries and target

2. HE funding

...from the lesson

- The theory of change is important because it allows to identify:
 - Who are the beneficiaries of the policy: i.e who gains from the policy
 - Who are the target group of the policy: i.e. who will change his/her behavior because of the policy

in our case ...

Beneficiaries: universities, State
Target: students



...from the lesson

- The product of a policy
- What is the direct result of the activity of the implementors

Which is the output of the loan policy?



the output is the individual loan



Which is the appropriate indicator?



the effectiveness in terms of policy output will be achieved if all students benefit from a loan



Policy is effective
if $I_{\text{OUTPUT}} \rightarrow 100\%$

$$I_{\text{OUTPUT}} = \frac{\text{number of students asking for a loan}}{\text{number of students}}$$

...from the lesson

- The transformation of the problem
- The change in the need or in the demand

Which is the IMPACT of the loan policy?

The increase of higher education funding could be split into:

- 1) the increase of universities funds (tuition fees policies as additional financial source)
- 2) the reduction of public expenditure for universities (tuition fees policies as an alternative financial source)



Which is the appropriate indicator?



In the first case
the indicator has to evaluate the change over time
of the university's revenue per student

Policy is effective
if I_{IMPACT} increases
over time



$$I_{\text{IMPACT}} = \frac{\text{total public funds} + \text{tuition fees}}{\text{number of students}}$$



Which is the appropriate indicator?



In the second case
the indicator has to measure the trend
of public higher education expenditure for student



Policy is effective
if I_{IMPACT} decreases
over time



$$I_{IMPACT} = \frac{\text{higher education public expenditure}}{\text{number of students}}$$



...from the lesson

THE OUTCOME IS THE
CHANGE IN TARGET
GROUP BEHAVIOUR

Which is the **OUTCOME** of the loan policy?



In our case, the change in behaviour consists of the change in higher education demand related to a rise in tuition fees.

Which is the appropriate indicator?



The effect of this policy is not obvious. In fact, the problem of higher education funding becomes a problem of optimum fees.

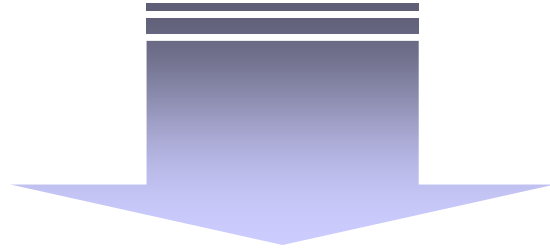
Anyway, an analysis of price elasticity of demand (before and after the adoption of a student loan programme) should suggest relevant information about policy outcome.

In fact, it is a measure of how students react (in terms of enrolments) to a change in tuition fees.



3. The goals of student loans policy

Which are the goals of a student loan policy?



1. allow the access to higher education of students from disadvantaged background
2. increase of higher education funding
- 3. promotion of specific professional skills**
4. secure financial student autonomy.



Theory of change

The set of these conditions and assumptions is what we call the “theory of change” and the first task of the analyst is to identify it and evaluate it on two counts:

1. If it is clear enough
2. If it is reasonable and convincing

...from the lesson

in our case ...

If we introduce a public programme of loans for a special category of students (students enrolled in a specific fields of study),
then the enrolments in specific sectors should increase
and the shortage of specific skills should decrease



5.3 Beneficiaries and target

3. Prom. specific skills

...from the lesson

- The theory of change is important because it allows to identify:
 - Who are the beneficiaries of the policy: i.e who gains from the policy
 - Who are the target group of the policy: i.e. who will change his/her behavior because of the policy

in our case ...

Beneficiaries: firms

Target: students



6.3 OUTPUT

3. Prom. specific skills

...from the lesson

- The product of a policy
- What is the direct result of the activity of the implementors

Which is the output of the loan policy?



the output is the individual loan



Which is the appropriate indicator?



the effectiveness in terms of policy output means that all the (additional) students enrolled in a specific field of study could profit from the programme.



Policy is effective
if $I_{\text{OUTPUT}} \rightarrow 100\%$

I_{OUTPUT}

=

$$\frac{\text{number of students with loan enrolled in specific fields}}{\text{total students enrolled in specific fields}}$$



...from the lesson

- The transformation of the problem
- The change in the need or in the demand

Which is the IMPACT of the loan policy?



Reduction of the shortage in specific fields



6.3 effectiveness of policy IMPACT

3. Prom. specific skills

Which is the appropriate indicator?



We need to measure the shortage: a consultation with the employers might solve the problem. In this case, the indicator consists of the shortage reduction, that is the percentage of firms that assert the existence of a shortage.

Policy is effective
if I_{IMPACT} decreases
over time



I_{IMPACT}

=

$$\frac{\text{number of firms asserting a shortage of specific skills}}{\text{number of firms using the skills}}$$



6.3 OUTCOME

3. Prom. specific skills

...from the lesson

THE OUTCOME IS THE
CHANGE IN TARGET
GROUP BEHAVIOUR

Which is the **OUTCOME** of the loan policy?



**In our case, the change in behaviour consists of
the change in student behaviour.**



6.3 effectiveness of policy OUTCOME

3. Prom. specific skills

Which is the appropriate indicator?



The introduction of the programme should affect student choices, altering the pre-existing priorities.

That means that, if the demand of higher education stays equal, with the introduction of the programme an increase of the enrolments in some fields and a reduction in others should occur.

Policy is effective
if $I_{\text{OUTCOME}} > 1$



I_{OUTCOME}

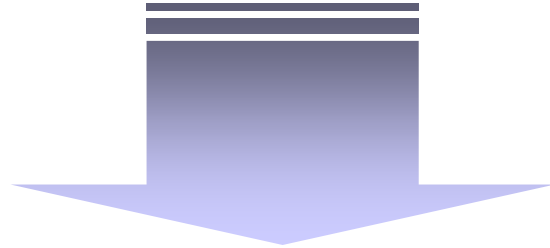
=

$$\frac{\text{enrolments variation in the promoted field}}{\text{average of enrolments variation}}$$



3. The goals of student loans policy

Which are the goals of a student loan policy?



1. allow the access to higher education of students from disadvantaged background
2. increase of higher education funding
3. promotion of specific professional skills
4. **secure financial student autonomy**



...from the lesson

Theory of change

The set of these conditions and assumptions is what we call the “theory of change” and the first task of the analyst is to identify it and evaluate it on two counts:

1. If it is clear enough
2. If it is reasonable and convincing



in our case ...

if we introduce a public programme of loans for all students,
then the students should reach a financial autonomy



5.4 Beneficiaries and target

4. Students autonomy

...from the lesson

- The theory of change is important because it allows to identify:
 - Who are the beneficiaries of the policy: i.e who gains from the policy
 - Who are the target group of the policy: i.e. who will change his/her behavior because of the policy

in our case ...

Beneficiaries: students, families

Target: students



...from the lesson

- The product of a policy
- What is the direct result of the activity of the implementors

Which is the output of the loan policy?



the output is the individual loan



Which is the appropriate indicator?



the effectiveness in terms of policy output will be achieved if all students are independent from their families as they benefit from a loan

Policy is effective
if $I_{\text{OUTPUT}} \rightarrow 100\%$



$$I_{\text{OUTPUT}} = \frac{\text{number of students with a loan}}{\text{total number of students}}$$

...from the lesson

- The transformation of the problem
- The change in the need or in the demand

Which is the IMPACT of the loan policy?

student financial autonomy



Which is the appropriate indicator?



In this case, the intended impact is exactly a change in behaviour of the beneficiaries.

The effectiveness in terms of impact can be measured directly by asking the target group if the loan makes the difference in their choice.

Policy is effective
if I_{IMPACT} = number of
respondents



I_{IMPACT} = number of respondents declaring a change of behaviour



6.4 OUTCOME

4. Students autonomy

...from the lesson

THE OUTCOME IS THE
CHANGE IN TARGET
GROUP BEHAVIOUR

Which is the outcome of the loan policy?



**In our case, the change in behaviour consists in
the change in students behaviour.**



Which is the appropriate indicator?



In this case, the students with a loan reach more autonomy BUT they also support the whole risk of their education.

From this angle, the policy is effective in terms of outcome if there is a change in the academic performances of the students with a loan.

Policy is effective if $I_{\text{OUTCOME}} < 1$



$$I_{\text{OUTCOME}} = \frac{\text{time to graduate for students with loan}}{\text{time to graduate for students without a loan}}$$



7. ...to sum up

In order to identify a set of effectiveness indicators, given a public policy the logical path should be...

Identify
the
policy goals

Making
clear
the theory
of change

Identify
beneficiaries
and
target

Develop the
indicators