PARTICIPANT'S GUIDE

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GENERAL FEATURES OF THE COURSE

1. DESCRIPTION

Welcome to the course **Data for effective policy making**, offered by the Inter-American Development Bank (IDB) through the edX platform.

Since 2014, the IDB, through the IDBx program, has developed a series of massive open online courses - MOOCs, for its acronym in English - aimed primarily at public officials from Latin American and the Caribbean countries, and citizens interested in knowing the reality of their countries.

One of the challenges faced daily by public institutions, non-governmental organizations, development agencies, and other stakeholders that promote economic and social development in the Caribbean, is being able to understand the data and charts found in reports and studies to make evidence-based decisions in order to improve public policies.

This course presents concepts and tools that can be applied to strengthen your ability to use, understand and interpret data, using a data set developed by the Inter-American Development Bank (IDB), which presents socio-economic data and indicators of Latin America and the Caribbean. Through these tools, you will be able to understand how to improve the decision-making process in public management. Also, another goal of this course is that you can understand the basic concepts of data analysis that will allow you to maintain efficient communication with data specialists.

2. PARTICIPANT PROFILE

The course Data for Effective Policy Making is aimed at:

- Public officials of Latin America and the Caribbean at national, regional and municipal levels.
- Private sector and civil society organizations in Latin America and the Caribbean.
- Citizens of Latin America and the Caribbean interested in making decisions based on evidence

The access to the course non-evaluated material is free for all students, for a limited time.

3. COURSE'S REGISTER MODES

This course is free, and consists of 5 content modules, plus an introduction and closure modules. The modules will sequentially present concepts and tools through contents that will help you understand them: (module 1) you will learn to recognize the importance of the relationship between data analysis and decision making in public management; (module 2); to define the research problem, the starting hypothesis, the analysis variables, and some methods to verify the hypothesis; (module 3); to identify the methodology that best responds to the problem of collecting, interpreting, and analyzing data (module 4); to interpret and develop different types of visualizations using concrete examples of the Numbers for Development portal; (module 5); and to use data analysis to propose solutions for public policy problems, to explain the evaluation of policy and to carry out policy planning.

Remember that you can take the course under one of the following modalities:

- **Audit track**: Having limited and free access to the course material. With this option you will not get a verified certification at the end of the course and you will not have access to the graded assessment questionnaires.

- **Verified Certificate**: in this option you can obtain an official certificate issued by the IDB and edX that you can share on your CV and on LinkedIn.

Throughout the course, you will be informed when your access expires. Take the opportunity to review or download the materials of your interest before that day. Remember to check the customized schedule in this **link**.

To obtain the verified certificate of the course, you must meet **three** conditions:

1. Pass the course, obtaining at least 65% of the total points.
2. Pay $ 25 dollars, which is the minimum cost of issuing certificates that edX establishes
3. Complete identity verification in edX undergo **identity verification in edX**.

If you wish to obtain the certificate of the course, you must opt for the verified certificate mode.

Also, if you registered yourself as an audit track without a certificate and decide to obtain it, you can change the modality by making the respective payment. Review the dates and complete the graded

assignments required to earn the certificate. EdX has **financial assistance** for students who need it. If you opt for this alternative, you can download **the tutorial with the steps to obtain the verified certificate**.

4. DURATION AND COURSE DEDICATION

This course is "self-paced", we estimate that you should dedicate around 40 hours to complete all the course's activities, including the graded evaluation activities.

Remember that if you opted to take the course in the audit track mode, you will have free access to the course material, including videos, lectures, forums, additional resources, and non-scored practical exercises. However, you will not have access to the scored evaluation questionnaires.

- If you opt for the **Audit track,** you can complete the course during 10 weeks from the day you subscribed.
- If you opt for the **Verified track,** you can access the course until the closing date, (**March 06th, 2023**) and will have unlimited access to the course content.

4.1 IMPORTANT DATES

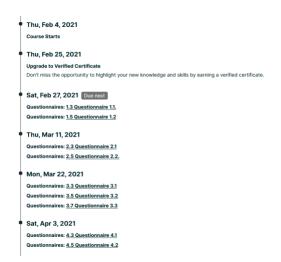The most important dates you should keep in mind are the following

- **March 04th, 2022**: course becomes available
- **February 24th, 2023**: deadline to apply for the verified certificate
- **March 06th, 2023:** end of the available period and the course becomes archived.

Remember to check the personalized schedule in the **first page** of the course or the right or in the ¨**dates**¨ tab.

In the dates tab you will find a suggested schedule according to the modality you have chosen and the date on which you have registered.

Data for Effective Policy Making

If you are enrolled in the **verified certificate track**, the edX platform will show you in this space a suggested schedule, these are customized dates to help you plan and control the pace of your studies.

If you can't send a quiz, notice that an assignment is overdue, or read a message that you haven't met the suggested deadline, don't worry as you can change the suggested dates at any time until the course closes (**March 06th, 2023**)**.**

You can change the due dates by clicking on the button **"Shift due dates"** to update the calendar.

This process will not affect the progress you have made in the course so far.

Keep in mind that this button will not be activated when the suggested date has not expired, also it will not be possible to change the expiration date of any open response evaluation and the end of course date is not modifiable.

5. IMPORTANT CONSIDERATIONS

To complete the course, you will need:

A computer with Internet access. We also recommend having updated versions of one of the following browsers: Chrome, Firefox, Safari or Internet Explorer (version 9 onwards).

You can also access the course through your mobile device or tablet, downloading the edX application from Google Play or Apple Store.

If this is your first edX course, we recommend that you start by viewing the **demo course**[1] before you start, to learn how to navigate the platform. If you are already familiar with edX, you can review the first section of the course, "Start here", where you will find all the information you need to successfully complete this MOOC.

This MOOC does not have tutors. Therefore, the forums will not be moderated by the course team. However, we will be monitoring and intervening to highlight contributions and take action if that is not consistent with the **participation criteria in the forums**.

6. LEARNING GOALS

By the end of this course, you will be able to:

- Recognize the importance of the relationship between data analysis and decision-making in public management.
- Define the research problem, starting hypothesis, analysis variables and some methods to test the hypotheses.
- Identify the methodology that best addresses the problems for collecting, interpreting and analyzing data.

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[1] Until December 2020, the demo course is only available in English with Spanish subtitles.

- Identify how to use data analysis to propose solutions to public policy problems, and to explain the assessment of a policy, and to carry out policy planning.
- Browse the structure of the edX platform and the course.

To achieve each general objective, in each module you will have to fulfill specific objectives.

7. CONTENT STRUCTURE AND SPECIFIC LEARNING GOALS

The course is free and consists of 5 content modules, plus an introductory and a final module, which have the following specific objectives:

MODULE START HERE

- Describe the course structure
- Browse the edX platform.

MODULE 1: THE IMPORTANCE OF DATA IN DECISION-MAKING

- Describe what an evidence-based decision is.
- Identify the challenges associated with data analysis for decision making.

In the following table you will see the learning resources of the module:

Subsection	Specific objectives	General description	Activity type	Mandatory activity	% of final grade
Introduction	Describe the course structure.	Introduction	Reading	Yes	-
		Welcome to the Course	Video	Yes	-
What is an Evidence-Based Decision?	Describe what an evidence-based decision is.	Why Is It Important to Use Data in Decision Making?	Video	Yes	-

Subsection	Specific objectives	General description	Activity type	Mandatory activity	% of final grade
		Using Data to Optimize Health Outcomes	Video	Yes	-
		Heterogeneity in The Performance of Health Centers	Video	Yes	-
		What is an Evidence-Based Decision?	Reading	Yes	-
		Greenhouse Gas Emissions and Agricultural Policy	Reading	Yes	-
		Practicing with Numbers for Development 1	Activity	Yes	-
Questionnaire 1.1.	Describe what an evidence-based decision is.	Questionnaire 1.1.	Questionnaire	Yes	9%
Data Analysis and Decision Making	Identify the challenges associated with data analysis for decision making.	What is Data Analysis?	Video	Yes	-
		The Importance of Data Quality and Reliability	Reading + External video	Yes	-
		Caribbean Data	Video	Yes	-
		Introduction to Caribbean Data Portal	Video	Yes	-

Subsection	Specific objectives	General description	Activity type	Mandatory activity	% of final grade
		How the Visualization of Data Can Help the Process	Reading + External video	Yes	-
		Crime in The Caribbean Dashboard	External reading + Video	Yes	-
		Practicing with Caribbean Data Portal 1	Activity	Yes	-
Questionnaire 1.2	Identify the challenges associated with data analysis for decision making.	Questionnaire 1.2	Questionnaire	Yes	9%
Module Conclusion	N/A	Additional Optional Resources	Reading	No	-

MODULE 2: CONVERTING CONCEPTS INTO MEASURABLE PARAMETERS

- Use the problem tree method to identify the research problem to study.
- Identify the null and alternative hypothesis which the analysis will be based on.
- Choose the types of data and variables that most strongly influence the research problem.

In the following table you will see the learning resources of the module:

Subsection	Specific objectives	General description	Activity type	Mandatory activity	% of final grade
Introduction	Describe the course structure.	Introduction	Reading	Yes	-
		Welcome to Module 2	Video	Yes	-
Identify the Study Problem	Use the problem tree method to identify the research problem to study.	Problem Tree Analysis	Reading	Yes	-
		Bird Flu Case-Study: Part One	Video	Yes	-
		Statement of Purpose	Reading	Yes	-
	Identify the null and alternative hypothesis which the analysis will be based on.	What Is a Hypothesis?	Video	Yes	-
		Practical Activity	Activity	Yes	-
		How to Formulate a Hypothesis	Reading	Yes	-
		Play with Data and Generate a Hypothesis	Video	Yes	-
		Creating a Tree Analysis and Identifying a Hypothesis	Activity	Yes	-

Subsection	Specific objectives	General description	Activity type	Mandatory activity	% of final grade
Questionnaire 2.1	Use the problem tree method to identify the research problem to study. Identify the null and alternative hypothesis which the analysis will be based on.	Questionnaire 2.1	Questionnaire	Yes	9%
Select Appropriate Variables	Choose the types of data and variables that most strongly influence the research problem.	Converting Concepts into Measurable Variables	Reading	Yes	-
		Types of Variables	Video	Yes	-
		The Difference Between Data and an Indicator	Video	Yes	-
		Practicing with Numbers for Development 2	Activity	Yes	-
		Understanding Statistics and Indicators	Reading	Yes	-
	Choose the types of data and variables that most strongly influence the research problem.	Comparing Caribbean Data	Video	Yes	-
		Evaluating Effectiveness of Privately Managed Schools	Reading	Yes	-

Subsection	Specific objectives	General description	Activity type	Mandatory activity	% of final grade
		Private Sector in the Caribbean	Reading + Video	Yes	-
		Practicing with Caribbean Data Portal 2	Activity	Yes	-
Questionnaire 2.2	Choose the types of data and variables that most strongly influence the research problem.	Questionnaire 2.2	Questionnaire	Yes	9%
Module Conclusion	N/A	Additional Optional Resources	Reading	No	-

MODULE 3: UNDERSTANDING DATA ANALYSIS

- List data collection strategies used in public policy.
- Identify the types of studies that can be carried out.
- Select the types of data analysis to use depending on the problem to be analyzed.

In the following table you will see the learning resources of the module:

Subsection	Specific objectives	General description	Activity type	Mandatory activity	% of final grade
Introduction to the Module	Describe the course structure.	Introduction	Reading	Yes	-
		Welcome to Module 3	Video	Yes	-

The Collection of Data	List data collection strategies used in public policy.	Data Collection Strategies	Reading	Yes	-
		Video: Ethical Risks in Relation to Data	Video	Yes	
		Reading: Ethical Risks in Relation to Data	Reading	Yes	
		Household Surveys to Calculate the Value of Environmental Goods	Video + External reading	Yes	-
		Data Collection Strategies (Follow Up)	Reading	Yes	-
		Interactive Map	External resource	No	-
Questionnaire 3.1	List data collection strategies used in public policy.	Questionnaire 3.1	Questionnaire	Yes	9%
Types of Studies	Identify the types of studies that can be carried out. .	Types of Studies	Video	Yes	-
		Convert the Collected Data into Variables	Reading	Yes	-
		The Information Center to Improve Learning	Video	Yes	-
		Important Ideas on Data Quality	Reading	Yes	-
		Latest trends in the application of statistical methods	Reading		

		Caribbean Macroeconomic Data	Reading + Video	Yes	-
		Practicing with Caribbean Data Portal 3	Activity	Yes	-
Questionnaire 3.2	Identify the types of studies that can be carried out.	Questionnaire 3.2	Questionnaire	Yes	9%
Methods of Data Analysis	Select the type of data analysis to use depending on the problem to be analyzed.	Comparison Between Two Groups	Animated Video	Yes	-
		Practical Activity	Activity	Yes	-
		Chi Square	Reading	Yes	-
		Analysis of Multiple Categories	Animated video	Yes	-
		Relationships Between Two Variables	Reading	Yes	-
		Summary of Analysis Methods	Video	Yes	-
		Selecting a Method of Data Analysis	Activity	Yes	-
Questionnaire 3.3	Select the type of data analysis to use depending on the problem to be analyzed.	Questionnaire 3.3	Questionnaire	Yes	9%
Module Conclusion	N/A	Additional Optional Resources	Reading	No	-

MODULE 4: DISPLAYING THE RESULTS

- Identify the type of chart or graphic to use based on the goal of the visualization.
- Use the Numbers for Development portal to create visualizations.
- Interpret visualizations to support the decision-making process.

In the following table you will see the learning resources of the module:

Subsection	Specific objectives	General description	Activity type	Mandatory activity	% of final grade
Introduction to the module	Describe the course structure	Introduction	Reading	Yes	-
		Welcome to Module 4	Video	Yes	-
Visualizations	Identify the type of chart or graphic to use based on the goal of the visualization.	The History of Visualizations	Reading	Yes	-
		Chart Types	Video	Yes	-
		How to Create Effective Visualizations	Reading	Yes	-
	Use the Numbers for Development portal to create visualizations.	Practicing with Numbers for Development 3	Activity	Yes	-
Questionnaire 4.1	Identify the type of chart or graphic to use based on the goal of the visualization.	Questionnaire 4.1	Questionnaire	Yes	9%
	Interpret visualizations to	How to Interpret Visualizations	Video	Yes	-

How to Interpret Visualizations?	support the decision-making process.

Use the Numbers for Development portal to create visualizations. | Visualizations of Data and Statistics | Reading + External reading | Yes | - |
		How Safe Are Caribbean Homes for Women and Children?	Reading	Yes	-
		Practicing with Caribbean Data Portal 4	Activity	Yes	-
		How to Add Context	Video	Yes	-
		Creative Challenge with Visualizations	Activity	Yes	-
Questionnaire 4.2	Interpret visualizations to support the decision-making process.	Questionnaire 4.2	Questionnaire	Yes	9%
Module Conclusion	N/A	Additional Optional Resources	Reading	No	-

MODULE 5: CLOSING THE LOOP: FROM DATA TO PLANNING

- Identify the main characteristics of the workflow for data-based policy making.
- Identify the main considerations to evaluate the success and impact of a policy.
- Interpret the results of an impact evaluation.

In the following table you will see the learning resources of the module:

Subsection	Specific objectives	General description	Activity type	Mandatory activity	% of final grade
Introduction to the module	Describe the course structure	Introduction	Reading	Yes	-
		Welcome to Module 5	Video	Yes	-
From Data to Planning	Identify the main characteristics of the workflow for data-based policy making.	From Data to Planning: First Steps of The Process	Reading	Yes	-
		Best Practices for Data-Based Reports	Video	Yes	-
		Bird Flu Case Study, Second Part	Video	Yes	-
		From Data to Planning (Follow Up)	Reading	Yes	-
		The Case of Brazil	Video	Yes	-
Questionnaire 5.1	Identify the main characteristics of the workflow for data-based policy making.	Questionnaire 5.1	Questionnaire	Yes	9%
Policy Evaluation	Identify the main considerations to evaluate the success and impact of a policy.	Evaluate Policy Results	Video	Yes	-
		How Do You Estimate the Impact of a Policy with an Impact Assessment?	Reading	Yes	-

Subsection	Specific objectives	General description	Activity type	Mandatory activity	% of final grade
	Interpret the results of an impact evaluation.	How to Detect If There Are Problems in Our Evaluation	Video	Yes	-
		Evaluating Parenting Interventions	Reading	Yes	-
		Interpreting an Impact Evaluation	Activity	Yes	-
Questionnaire 5.2	Identify the main characteristics of the workflow for data-based policy making.

Identify the main considerations to evaluate the success and impact of a policy. | Questionnaire 5.2 | Questionnaire | Yes | 9% |
| Module Conclusion | N/A | Additional Optional Resources | Reading | No | - |
| | | Objective Achievement - Module 5 | Survey | No | - |

Subsection	Specific objectives	General description	Activity type	Mandatory activity	% of final grade
Share Your Experience About the Course	N/A	Continue to Learn With IDB	Video	No	-
		Final Satisfaction Survey	Survey	No	-

COURSE GOALS

In addition to the learning objectives, the course goal is to mobilize the participants to act, identifying the areas in which they can contribute (such as public officials, social organizations, private companies, or citizens) promoting decision-making in the region based on the evidence.

8. METHODOLOGY

The course is available in a virtual modality, where there is no tutor in charge of monitoring the participant's progress, but rather it is self-directed so that each participant should advance autonomously in the schedules and times that they decide.

In the design of the course, we have combined passive learning resources, such as videos and readings, with active learning resources, in which participation and commitment are the basis for learning.

The purpose of the active learning resources is to apply theoretical content to your country's reality through guided activities that incorporate social and collaborative learning principles.

It is important to keep in mind that learning takes place through a conscious effort to investigate, analyze, reflect and share on topics of interest. We invite you to get the most out of the course by actively participating in it.

The first resource of each module consists of a page that contains the description, learning objectives, activities and evaluations that will be carried out in it. We recommend that you read this page carefully so that you are aware of the activities that you must carry out to complete the course successfully.

8.1   LEARNING RESOURCES

Each module is divided into sub-modules within which you will find various types of components or learning resources:

- Videos of presenters: main learning resource in which our instructors' comment on the most relevant contents of each course, with a simple and direct language.

- Animated videos: These videos further expand on the content of the course through the presentation of fictitious cases related to the public sector, regarding explain methods of data analysis.

- Readings: The readings will allow you to expand your understanding of the concepts explored in the course. In addition, some of the readings are based upon real cases in the region, which allow a contextualization of the theoretical elements of the course to the reality of the use of data in planning and public management in Latin America and the Caribbean.

- Practical Activities: These are questionnaire-style questions that include multiple-choice and/or drag and drop questions you must answer based on case studies or once you have solved a practical activity using the Numbers for Development or the Caribbean Data Portal.

- Tutorials: Through these PDF documents, you will learn how to perform specific tasks on the Numbers for Development and Caribbean Data Portal and learn about its features.

- Questionnaires: Throughout the course, you will find evaluation questionnaires, whose completion is mandatory if you want to opt for the verified certificate of the course. The questions you will find are multiple-choice. For more details, check the Evaluation and Certification section.

- External Resources (Mandatory): You will often find links to external pages of videos, readings or blogs that you must read or view to meet the learning objectives of the module. These activities are mandatory and are part of the course content. External links that are optional will be indicated accordingly. If an external link is not clearly marked as optional, it means that it is mandatory and should be viewed.

- Open Resources (Optional): If you wish to review additional information regarding the topics covered in the course, we recommend you view the Open Resources page. It is not mandatory to review these resources.

8.2   EVALUATION CRITERIA

Throughout the MOOC you will find two types of activities:

- Non-qualified exercises: all participants, regardless of the track they chose, will have access to the non-qualified exercises (usually consisting of multiple-choice questions) in which you can check your understanding of the most important concepts of each module. These exercises do not count towards the percentage needed to pass the course.

- Qualified evaluation questionnaires: tests of around 10 questions whose objective is to measure the learning gain of each module. The questionnaires will only be accessible to participants who chose the verified track.

To pass the course, you will have to answer all the qualified evaluation questionnaires and obtain an average equal to or greater than 65% among all the qualified activities.

To verify your course progress (percentage of course approval), go to the "**Progress**" that you will find in the top menu of the platform.

9. INSTRUCTORS

IVETTE FIS DE MELO

Librarian & Knowledge Management Specialist

Ivette is a former member of the IDB's Felipe Herrera Library team. She is the Embedded Librarian for the Infrastructure and Environment Sector (INE), and the Climate Change and Sustainable

Development Sector (CSD). Her scope of work has included environment, energy, water, agriculture, food security, urban transport and waste management.

She is the former head of the Documentation Center of the newspapers "Hoy" and "El Nacional" in the Dominican Republic. In 2003 she joined the IDB Secretariat as a Reporting Assistant, where she worked for two years before joining the Library.

Ivette is a Dominican national, a graduate of Latin American studies from the George Mason University and Master of Science in Information Technology from Drexel University

NORMA PALOMINO

Former Chief of the Information Services Unit (ISU); Knowledge, Innovation and Communications Sector (KIC)

As Chief of the Information Services Unit (ISU) for the Knowledge, Innovation and Communications Sector (KIC), Norma coordinated services in support of knowledge, innovation and communication programs in three main areas: 1) platforms and technologies (such as the institutional website, social media and marketing technologies, and internal processes compliance); 2) data analytics (mainly key performance indicators and marketing reports on digital dialog in the Latin American and Caribbean region); and 3) information dissemination (delivering of news and reports to targeted internal audiences).

Norma holds a master's degree in Information Sciences from the University of Texas at Austin, and a Doctor of Professional Studies in Information Management from Syracuse University, with concentration on artificial intelligence.

10. PARTICIPANT SUPPORT SERVICES

As the course unfolds, the following services will be available:

10.1 EDX HELP CENTER

In the edX Help Center, you will find answers to frequently asked questions about starting the course, basic edX information, certificates and other related topics.

10.2 PARTICIPANT SUPPORT

In the "**Participant support**" tab you will find a series of resources that you can use according to your needs:

- **General FAQ**: here you will find answers to general course topics, such as deadlines or the format of assessment questionnaires.
- **Technical FAQ**: here you will find answers to technical questions, such as the visualization of resources on computers or mobile devices.
- **Technical assistance form**: if you do not find an answer to your question in both pages bellow, at the top menu, in Participant support tab, you will find a form through which you can request personalized technical assistance. The response time is less than 24 hours from Monday to Friday and up to 48 hours on weekends.

11. GENERAL POLICIES

11.1 IDBX ACCESSIBILITY POLICY

Since we use the edX platform to deliver the course, we have adopted the edX **accessibility policy**.

11.2 ACADEMIC INTEGRITY POLICY

Since the edX platform is used to deliver the course, academic integrity issues are addressed through the **edX honor code.**

11.3 PRIVACY POLICY

Since the edX platform is used to deliver the course, privacy issues are addressed through the **edX privacy policy**.

11.4 LATE DELIVERY POLICY

If you opt for the verified certificate, the deadline for completing all the graded activities is the last day of the course. After the deadline, assessment options will be disabled.