

Chile - Open Educational Resources and Mathematics Skills 2014-2015

Research on Open Educational Resources for Development (ROER4D)

Report generated on: July 20, 2022

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Identification

SURVEY ID NUMBER

CHL_2014_ROER4D_v01_M

TITLE

Open Educational Resources and Mathematics Skills 2014-2015

COUNTRY/ECONOMY

Name	Country code
Chile	CHL

STUDY TYPE

Case study

ABSTRACT

This study examines the effect of the use of two Open Educational Resources (OER) (a Khan Academy online tutorial and an open textbook hosted on Wikibooks) on logical-mathematical outcomes for first and second-year students in higher education institutions in Chile. It also investigates perceptions of instructors and students about the use of OER, in order to understand how these resources are used and valued. Quantitative and qualitative methods were used to collect student performance data via a student survey, student focus groups, interviews with instructors, and sourcing institutional records.

Only the institutional records, focus group data and interview data are included in the final dataset. Student survey data is not made available for confidentiality reasons. Findings indicate that students in a contact-study mathematics course who used a Khan Academy online mathematics tutorial obtained better examination results than students who did not use any additional resources, or those who used the open textbook. Moreover, it was also found that instructors and students have positive perceptions about the use of Khan Academy and Wikibooks materials. This study is Sub-project 9 of the Research on Open Educational Resources for Development (ROER4D) project, hosted by the Centre for Innovation in Learning and Teaching (CILT) at the University of Cape Town, South Africa, and Wawasan Open University, Malaysia.

KIND OF DATA

Sample survey data [ssd]

UNIT OF ANALYSIS

Individuals

Version

VERSION DESCRIPTION

Version 01: Edited, anonymized dataset for public distribution.

VERSION DATE

2016

VERSION NOTES

Version 1 of the dataset was deposited with DataFirst on 5 July 2016.

Scope

NOTES

The data covers perceptions of students and instructors of the value of OER materials over traditional teaching and learning materials in Chile. This was supplemented by record data from the institution on student performance.

KEYWORDS

Keyword

Open textbooks
Open Educational Resources
Mathematics
Open Data

Coverage

GEOGRAPHIC COVERAGE

The interviews and survey data were conducted at one institution in Chile and are not representative of the country as a whole.

UNIVERSE

The survey covered students and instructors in the single institution involved in the study.

Producers and sponsors

PRIMARY INVESTIGATORS

Name	Affiliation
Research on Open Educational Resources for Development (ROER4D)	University of Cape Town

FUNDING AGENCY/SPONSOR

Name	Abbreviation	Role
International Development Research Centre	IDRC	Funding the study

Data Collection

DATES OF DATA COLLECTION

Start	End
2014-07	2015-07

DATA COLLECTION MODE

Face-to-face and internet [f2f-int]

DATA COLLECTION NOTES

The interviews were conducted with two instructors and three students, and comprised 20-30 (modal average 22) questions (1-1.5 hour interviews). An online survey was also administered to measure student perceptions of the use of OE (49 responses).

Access policy

CONTACTS

Name	Email	URL
DataFirst helpdesk	support@data1st.org	support.data1st.org

ACCESS CONDITIONS

Public use data, available to all

CITATION REQUIREMENTS

Research on Open Educational Resources for Development. OER and Mathematics Skills (ROER4D Sub-project 9) [dataset].
Version 1. Cape Town: ROER4D [producer], 2016. Cape Town: DataFirst [distributor], 2016. 10.25828/2z1s-rc06

ACCESS AUTHORITY

Name	Affiliation	Email	URL
DataFirst	University of Cape Town	support@data1st.org	support.data1st.org

Disclaimer and copyrights

DISCLAIMER

The user of the data acknowledges that the original collector of the data, the authorized distributor of the data, and the relevant funding agency bear no responsibility for use of the data or for interpretations or inferences based upon such uses.

Metadata production

DDI DOCUMENT ID

DDI_CHL_2014_ROER4D_v01_M

PRODUCERS

Name	Abbreviation	Affiliation	Role
DataFirst		University of Cape Town	Metadata producer
Development Economics Data Group	DECDG	The World Bank	Metadata adapted for Microdata Library

DATE OF METADATA PRODUCTION

2018-07-25

DDI DOCUMENT VERSION

Version 01: This metadata was downloaded from the DataFirst website (<https://www.datafirst.uct.ac.za/dataportal/index.php/catalog/central>). The following two metadata fields were edited - Document and Survey ID.

Data Dictionary

Data file	Cases	Variables
oehems-2014-2015-blended Impact analysis data (blended-mode learning)	0	10
oehems-2014-2015-contact Impact analysis data (contact-mode learning)	0	13

Data file: oehems-2014-2015-blended

Impact analysis data (blended-mode learning)

Cases: 0

Variables: 10

Variables

ID	Name	Label	Question
V1	id	Student ID	
V2	group	Comparison group	
V3	gender	Gender	
V4	age	Age	
V5	p_m	Presentation mark - before the exam	
V6	exam	Exam mark	
V7	f_m	Final mark - after the exam	
V8	income	student's household average monthly income (Chilean Pesos)	
V9	mot_ed	Mother's education level	
V10	mot_ed_y	Mother's education years	

Total: 10

Data file: oehems-2014-2015-contact

Impact analysis data (contact-mode learning)

Cases: 0

Variables: 13

Variables

ID	Name	Label	Question
V11	id	Student ID	
V12	group	Comparison group	
V13	gender	Gender	
V14	age	Age	
V15	region	Region of origin	
V16	attendance	Percentage of attendance of the student during the term	
V17	p_m	Presentation mark - before the exam	
V18	exam	Exam mark	
V19	f_m	Final mark - after the exam	
V20	income	Student's householderage monthly income (Chilean Pesos)	
V21	mot_ed	Mother's education level	
V22	mot_ed_y	Mother's education years	
V23	reg_rec	Region of the student (recoded)	

Total: 13

ID: Student ID**Data file: oehems-2014-2015-blended****Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 2 Range: 2 - 63 Format: Numeric

MOT_ED_Y: Mother's education years**Data file: oehems-2014-2015-blended****Overview**

Valid: 0 Invalid: 0

Type: Discrete Decimal: 0 Width: 2 Range: 4 - 17 Format: Numeric

GROUP: Comparison group**Data file: oehems-2014-2015-blended****Overview**

Valid: 0 Invalid: 0

Type: Discrete Decimal: 0 Width: 1 Range: 1 - 4 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category
1	KhanAcademy
3	None OER
4	KhanAcademic

GENDER: Gender**Data file: oehems-2014-2015-blended****Overview**

Valid: 0 Invalid: 0

Type: Discrete Decimal: 0 Width: 1 Range: 1 - 2 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category
1	Female
2	Male

AGE: Age**Data file: oehems-2014-2015-blended****Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 2 Range: 19 - 65 Format: Numeric

P_M: Presentation mark - before the exam**Data file: oehems-2014-2015-blended****Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 3 Range: 2.9 - 6.7 Format: Numeric

EXAM: Exam mark**Data file: oehems-2014-2015-blended****Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 3 Range: 1.6 - 7 Format: Numeric

F_M: Final mark - after the exam**Data file: oehems-2014-2015-blended****Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 3 Range: 2.7 - 6.6 Format: Numeric

INCOME: student's household average monthly income (Chilean Pesos)**Data file: oehems-2014-2015-blended****Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 7 Range: 80000 - 3000000 Format: Numeric

MOT_ED: Mother's education level**Data file: oehems-2014-2015-blended**

Overview

Valid: 0 Invalid: 0

Type: Discrete Decimal: 0 Width: 2 Range: 0 - 18 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category
0	Did Not Study
1	1B: 1ST year of primary education
2	2B: 2nd year of primary education
3	3B: 3rd year of primary education
4	4B: 4th year of primary education
5	5B: 5th year of primary education
6	6B: 6th year of primary education
7	7B: 7th year of primary education
8	8B: 8th year of primary education
9	1M: 1st year of secondary education
10	2M: 2nd year of secondary education
11	3M: 3rd year of secondary education
12	4Mhc: Secondary Education Completed (Scientific-Humanistic).
13	4Mtp: Secondary Education Completed (Technical-Professional).
14	Incom_CFT_IP: Incomplete Technical Training Center or Professional Institute.
15	Com_CFT_IP: Complete Technical Training Center or Professional Institute.
16	Incom_Uni: Incomplete University.
17	Com_Uni: Complete University.
18	Com_Uni

ID: Student ID**Data file: oehems-2014-2015-contact****Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 3 Range: 1 - 106 Format: Numeric

GROUP: Comparison group**Data file: oehems-2014-2015-contact****Overview**

Valid: 0 Invalid: 0

Type: Discrete Decimal: 0 Width: 1 Range: 1 - 3 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category
1	Open Book
2	KhanAcademy
3	None OER

GENDER: Gender**Data file: oehems-2014-2015-contact****Overview**

Valid: 0 Invalid: 0

Type: Discrete Decimal: 0 Width: 1 Range: 1 - 2 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category
1	Female
2	Male

AGE: Age**Data file: oehems-2014-2015-contact****Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 2 Range: 18 - 54 Format: Numeric

REGION: Region of origin**Data file: oehems-2014-2015-contact****Overview**

Valid: 0 Invalid: 0

Type: Discrete Decimal: 0 Width: 1 Range: 1 - 9 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category
1	RM: Metropolitan Region
2	II: Region of Antofagasta
3	V: Region of Valparaíso
4	VIII: Region of Bio Bio
5	IX: Region of Araucanía
6	XV: Region of Arica y Parinacota
7	.
8	III
9	XIV

ATTENDANCE: Percentage of attendance of the student during the term**Data file: oehems-2014-2015-contact****Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 3 Range: 61 - 100 Format: Numeric

P_M: Presentation mark - before the exam**Data file: oehems-2014-2015-contact****Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 3 Range: 2.8 - 6.8 Format: Numeric

EXAM: Exam mark**Data file: oehems-2014-2015-contact**

Overview

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 1 Range: 1 - 8 Format: Numeric

F_M: Final mark - after the exam**Data file: oehems-2014-2015-contact****Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 3 Range: 2.5 - 6.8 Format: Numeric

INCOME: Student's householdage monthly income (Chilean Pesos)**Data file: oehems-2014-2015-contact****Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 6 Range: 50000 - 900000 Format: Numeric

MOT_ED: Mother's education level**Data file: oehems-2014-2015-contact****Overview**

Valid: 0 Invalid: 0

Type: Discrete Decimal: 0 Width: 2 Range: 0 - 18 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category
0	Did Not Study
1	1B: 1st year of primary education
2	2B: 2nd year of primary education
3	3B: 3rd year of primary education
4	4B: 4th year of primary education
5	5B: 5th year of primary education
6	6B: 6th year of primary education
7	7B: 7th year of primary education
8	8B: 8th year of primary education
9	1M: 1st year of secondary education
10	2M: 2nd year of secondary education
11	3M: 3rd year of secondary education

12	4Mhc: Secondary Education Completed (Scientific-Humanistic).
13	4Mtp: Secondary Education Completed (Technical-Professional).
14	Incom_CFT_IP: Incomplete Technical Training Center or Professional Institute.
15	Com_CFT_IP: Complete Technical Training Center or Professional Institute.
16	Incom_Uni: Incomplete University.
17	Com_Uni: Complete University.
18	Com_Uni

MOT_ED_Y: Mother's education years

Data file: oehems-2014-2015-contact

Overview

Valid: 0 Invalid: 0

Type: Discrete Decimal: 0 Width: 2 Range: 2 - 17 Format: Numeric

REG_REC: Region of the student (recoded)

Data file: oehems-2014-2015-contact

Overview

Valid: 0 Invalid: 0

Type: Discrete Decimal: 0 Width: 1 Range: 0 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category
0	Other Region
1	Metropolitan Region

Documentation

Technical documents

Dataset Description

Title	Dataset Description
Author(s)	Werner Westermann
Date	2015-01-01
Country	Chile
Language	English
Contributor(s)	This is the technical report on the study
Filename	rscaoersa-2016-description.pdf

Variable Description of the Impact Analysis Data Base (Face to Face students) - Students Blended

Title	Variable Description of the Impact Analysis Data Base (Face to Face students) - Students Blended
Country	Chile
Language	English
Filename	rscaoersa-2016-variable-description-students-blended.pdf

Variable Description of the Impact Analysis Data Base (Face to Face students) - Students Contact

Title	Variable Description of the Impact Analysis Data Base (Face to Face students) - Students Contact
Country	Chile
Language	English
Filename	rscaoersa-2016-variable-description-students-contact.pdf
