

# 2022 Final Donor Report Improving Education Management and Innovation in the Province of Mendoza AR-T1197

**Basic Information** 

**Approval Year** 

: 2018 Region : CSC

Team Leader : Bergamaschi, Andrea Country : Argentina

Taxonomy : Client Support Department : SCL

Fund : JSF Sector : ED - Secondary Education

Approval Number : ATN/JF-16665-AR Sub Sector : SEC

Execution Agency : AR-DGE-MENDOZA

**Execution Status**: Active

Operation Objective : This Technical Cooperation (TC) aims at supporting the DGE to strengthen educational management through integrated data and information systems, and to

improve students' performance with the introduction of innovative teaching and learning methodologies.

## **Financial Information**

AR-T1197			
ATN/JF-16665-AR:JSF	Original	Current	% of Current Amount Financed
Amount Financed	\$700,000.00	\$691,179.83	
Disbursed Amount	N/A	\$691,179.83	100.00 %
Commitments not yet disbursed Amount	N/A	-	0.00 %
Available Amount	N/A	-	0.00 %
Final Disbursement Date	Jul 25, 2022		

#### **Status Update**

In 2022the TC presented a very positive execution, with the completion of all the planned outputs. It reached the last disbursement date on July, 22th with successful improvements in education management system (GEM) and innovation projects. After that date, the General Direction of Schools of the province of Mendoza (DGE) has been working in the process related to the TC closure, especifically with the preparation of financial statements for the entire program execution. The program has reached an execution rate of more than 95%. Thanks to TC support, important advances were achieved in Mendoza educational management system. The development of the digital evaluation platform (GEM+) allowed the DGE to follow student's performance closely during the closure of schools due to the pandemic. This collaborative learning evaluation platform continues successfully in operation and Mendoza is one of the very few provinces in Argentina that has been able to implement an integral program to monitor students performance and specific needs during the pandemic. The success of the platform implementation is linked to the training plan developed and executed. The training Plan was designed for teachers, non-teaching staff, directors, supervisors and ministerial officials with an action plan to the migration to the new system. The execution of the two training programs GEM and GEM+ was concluded in 2022 through Escuela Digital Mendoza in Moodle platform. For example, In the course "Evaluation: An opportunity for learning", there were two cohorts in which around 6700 teachers from all over the province participated. At the end of the course per cohort, a satisfaction

survey was carried out in which the evaluation was highly positive. Also, in 2022, work was completed the creation of items for each learning indicator of the specifications table for all school grades/years. Thismade it possible for all teachers to visualize examples in the platform and use them in their tests. The loading of the specification tables for all grades/years was accomplished for both Mathematics and Language. Items were developed for the years that will participate in the program's baseline (4th and 5th grades of primary school and 2nd and 3rd years of secondary school). Finally, progress was made in the development of the program's impact evaluations. The firm "Fundación Centro de Implementación de Políticas Públicas para la Equidad y el Crecimiento CIPPEC" was hired to conducta diagnostic analysis of GEM and recommendations for its improvement. Specifically, an introduction to GEM Testing was carried out to understand the user experience and the information available for each sector of the educational system. Also, they have been working in the creation of a socio-educational vulnerability indicators scheme.

## **Advance in the Achievement of Outcome and Outputs**

## Advance in the Achievement of Outcome

1. Contribute to strengthen educational management through integrated data and information systems, and improve students' performance with the introduction of innovative teaching and learning methodologies.

Thanks to TC support, important advances were achieved in Mendoza educational system. The development of the digital evaluation platform (GEM+) allowed the DGE to follow student's performance closely during the closure of schools due to the pandemic. This collaborative learning evaluation platform continues successfully in operation and Mendoza is one of the very few provinces in Argentina that has been able to implement an integral program to monitor students performance and specific needs during the pandemic. The success of the platform implementation is linked to the training plan developed and executed. The training Plan was designed for teachers, non-teaching staff, directors, supervisors and ministerial officials with an action plan to the migration to the new system. The execution of the two training programs GEM and GEM+ was concluded in 2022 through Escuela Digital Mendoza in Moodle platform, reaching around of 6700 teachers from all over the province.

## **Advances in Execution**

1. Management Information Systems

Component Cost: \$285,000

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	Α
1.1 <sup>s</sup> Institutional development plan designed	Report containing the roadmap for the design and implementation of an	Plans (#)	0	2018	Electronic copy of the report in EzShare	Education	Physical			
uesigneu	EMIS in DGE, with IADB no objection (JSF)				report in Ezsitare		2018	1	1	0
							2019	1	2	1
							2020	0	1	0
							2021		1	0
							2022		1	1
							EOP 2022	2	2	2
							Financial			
							2018	30000	30000	0
							2019	10000	40000	9401.85
						2020	0	239098.15	93538.76	
						2021		145559.39	108648.95	
						2022		36910.44	30826.95	
						EOP 2022	40000	248500	242416.51	

Advances In Execution: During 2022, work was carried out on the infrastructure management of the "Plataforma Escuela Digital", its maintenance, user complaints and problem solving. Also support was given for the Biometric Management System in handling complaints and school registrations. The Consulting Firm "Aconcagua Software Factory SA" completed his work on the analysis, development and programming of 6,000 hours of informatic services for the continuous improvement of the digital education system. It concluded with the successful operation of the App in the province of Mendoza. Important progress was made during TC execution in the GEM system, analysis of the HR system, Data Ware House as an online information system, integration of the RA system with GEM, the PODES system, and the Food System.

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	А	
1.2 s Institutional development plan	Report containing the design of	Plans (#)	0	2018	Electronic copy of the	Education	Physical				
implemented	training sessions to school principals and districts managers in using the system for education planning and				plan in EZShare		2018	1	1	0	
	budgeting with IADB no objection (JSF)						2019	1	2	0	
							2020	1	3	0	
							2021		3	2	
							2022		1	1	
								EOP 2022	3	3	3
							Financial				
							2018	100000	100000	0	
							2019	70000	170000	0	
							2020	45000	29000	0	
							2021		29000	14500	
							2022		14500	14500	
							EOP 2022	215000	29000	29000	

Advances In Execution: A Training Plan was designed for teachers, non-teaching staff, directors, supervisors and ministerial officials with action plan to migrate from the current system to the proposed SIGED. In one side, in the GEM training plan, it was decided to work on the creation of instructional videos. First, an introductory video was created with the objective of disseminating the functionalities offered by the platform and the areas it covers to the general public. Then, they worked on the creation of videos and instructional materials designed in relation to the work roles addressed by GEM, which are Teaching roles, School role and Supervision role. In the other side, in the GEM+ training plan, an evaluation of the training needs associated with specific knowledge of evaluation and use of the SOTE platform was carried out. From this analysis, it was agreed to design four modules of general and specific training in order to promote significant learning in evaluation with a duration of eight hours each and a total workload of thirty-two hours. The didactic design implies knowledge that requires the orderly fulfillment of the blocks of Evaluation, Item Design, GEM+ and Specific Disciplinary Evaluation.

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	Α								
1.3 <sup>s</sup> Training products developed	Report containing the implementation of training sessions to school principals, districts users and headquarters users in using the system for education planning and budgeting, with IADB no objection BID. (JSF)									Products (#)	0	2018	Electronic copy of the report in EzShare	Education	Physical			
					TEPUIT III LZSHATE		2018	0	0	0								
							2019	1	1	0								
							2020	1	2	0								
							2021		2	1								
							2022		1	1								
							EOP 2022	2	2	2								
							Financial											
							2018	0	0	0								
							2019	20000	20000	0								
							2020	10000	7500	0								
						2021		7500	3750									
						2022		3750	3750									
							EOP 2022	30000	7500	7500								

Advances In Execution: The second stage of the implementation of the two training programs GEM and GEM+ for teachers was concluded through Escuela Digital Mendoza in Moodle platform, where it was decided to work on the design of workshop-type courses in a self-managed distance format. The format of the course, which determines the design of each page, was arranged in "tabbed theme". This implies that each of the sections and subsections were arranged as tabs and sub-tabs respectively, which were unlocked as participants completed all the proposed activities (watching videos, reading material, quizzes, audios, mind maps, etc). The completion tracking for each activity had two modes: participants could either manually mark the activity as completed or show the activity as completed when the conditions were met. In the course "Evaluation: An opportunity for learning" there were two cohorts in which around 6700 teachers from all over the province participated. At the end of the course per cohort, a satisfaction survey was carried out in which the evaluation was highly positive. Among some comments, DGE highlighted: "We never forget what we learn with pleasure"; "It mobilized my structures, training and updating enrich my profession. Thank you"; "Excellent and I hope for another enriching proposal like this one. Thank you and congratulations"; "Relevance and coherence between what is taught and what is evaluated". A follow-up during their implementation and an evaluation of their impact was carried out.

## 2. Educational Innovation

Component Cost: \$390,000

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	А
2.1 <sup>s</sup> Virtual platforms designed	Development and implementation of	Platforms (#)	0	2018	Platform set up and	Education	Physical			
	a digital learning platform for Secondary education students (JSF)				available to users		2018	1	1	0
							2019	1	2	0
							2020	1	2	1
							2021		1	1
							2022			0
							EOP 2022	3	2	2
							Financial			
							2018	60000	60000	0
							2019	60000	120000	6500
							2020	80000	290500	115359.57
							2021		128140.43	114405.25
							2022		6735.18	6632.17
							EOP 2022	200000	243000	242896.99

Advances In Execution: No outputs were planned for the period. This output was reached in 2021. The Collaborative Learning Evaluation Platform (GEM+), which was developed with the support of the TC, continues in operation at the General Direction of Schools of the province of Mendoza (DGE). In order to achieve the sustainability of the platform, Mendoza must continue with the pilot tests in schools to continue training users; make the necessary adjustments to the developed items; schedule operative formative evaluations; create diagnostic tests that will help teachers to know the level of learning; continue strengthening the technical teams of the DGE and have an evolutionary maintenance of the platform that allows to continue customizing it to their needs. On the other hand, we have adjusted the yearly goals as it has always been 2 platforms, not 3, as described on section 3.3. in the TC document. Unfortunately there was an error in the Results Matrix and therefore in the initial upload of information into Convergence.

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Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	А
2.2 <sup>s</sup> Training products developed	Development and implementation of	Products (#)	0	2018	Final version of	Education	Physical			
	a program to teach Mathematics for Primary education students. (JSF)				program materials on EZShare		2018	1	1	0
							2019	1	1	0
							2020	0	2	0
							2021		2	1
							2022		1	1
							EOP 2022	2	2	2
							Financial			
							2018	20000	20000	0
							2019	20000	20000	0
							2020	0	23000	0
							2021		99000	90924.89
							2022		20075.11	18142.4
							EOP 2022	40000	111000	109067.29

Advances In Execution: The consulting firm UNIVERSIDAD NACIONAL DE CUYO and FUNDACIÓN UNIVERSIDAD NACIONAL DE CUYO completed their work on the creation of items for each learning indicator of the specifications table for all school grades/years. This made it possible for all teachers to visualize examples and use them in their tests. The loading of the specification tables for all grades/years was completed for both Mathematics and Language. Items were developed for the years that will participate in the program's baseline (4th and 5th grades of primary school and 2nd and 3rd years of secondary school). These items were worked on by the group of specialists and teachers who are dedicated to produce and upload items to GEM platform. The process of uploading these items to the platform for subsequent piloting continues.

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Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	A
2.3 s Experimental impact evaluation	Development and implementation a	<b>Evaluation Final</b>	0	2018	Electronic copy of the	Education	Physical			
(ex-ante or ex-post) performed	randomized evaluation of Mathematics learning through the usage of a learning platform (JSF)	Report (#)			report in EzShare		2018	1	1	0
							2019	1	2	0
							2020	1	2	0
							2021		3	0
							2022		3	3
							EOP 2022	3	3	3
							Financial			
							2018	60000	60000	0
							2019	60000	120000	0
							2020	30000	70000	0
						2021		41000	0	
							2022		36000	35145.85
						EOP 2022	150000	36000	35145.85	

Advances In Execution: The consulting firm "Fundación Centro de Implementación de Políticas Públicas para la Equidad y el Crecimiento CIPPEC" conducted a diagnostic analysis of GEM and recommendations for its improvement. To this end, it interviewed managers and key players at both the primary and secondary levels of education. The main dimensions of the GEM platform were identified, focusing on educational statistics, nominal variables and real and potential users of the management system. Technical knowledge about the platform and its use was transferred. An introduction to GEM Testing was carried out to understand the user experience and the information available for each sector of the educational system. Also, the firm explored the database contained in the GEM system for the elaboration of a single request of data of the students of the province and the creation of a vulnerability indicators scheme. Informative meetings were held with the different departments of the DGE to understand the scope of the educational policies that use the socio-educational gap index in the province.

The firm visited the province to reinforce a territorial perspective and interviewed key actors of the project. Also, they did virtual meetings to complement the local perspective.

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**Deleted:** Initial student data the information collected by areas for improvement.

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