



## **Implementing the Blended Learning RefTeCp Diploma Programme**

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## EXECUTIVE SUMMARY

This deliverable reports on the procedures, methodologies and outcomes for the implementation of the first cohort of Egyptian and refugee teachers' RefTeCp Diploma programme. During the piloting, it was revealed that the great majority of refugee teachers working in the community schools had not a degree in the field of Education Sciences and thus they were not qualified for the Diploma programme. To this end, parallel to the Diploma programme, a professional certification training course was organized to respond to the needs of this cohort of refugee teachers. This decision was very important because their training will add much to the quality of education in the refugee community schools. It is worth pointing out, that a significant part of refugee children, attend the refugee community schools organized and run by their own associations.

Table 1 shows that 118 teachers were trained on the basis of the Diploma programme, including those in the pilot phase (66 Egyptian teachers and 42 refugee teachers). The total number of non-qualified refugee teachers trained reached up to 386, out of which 301 were women. Al Azhar University outscored in terms of the number of teachers trained in both cases (144 for the non-qualified teachers and 40 for the qualified) followed up by Zagazig University (104 for the non-qualified and 48 for the qualified). The training for the non-qualified refugee teachers amounts to 24 ECTS while the training for the Diploma programme amounts to 60 ECTS.

An evaluation survey was carried out to find out the trainees' satisfaction with their training and on the basis of the results achieved, the impact on teaching and learning in classes with refugee children can be drawn.

Table 1: In-service teachers trained by status and qualifications

PARTNER INSTITUTION	DIPLOMA REFUGEE/EGYPTIANS TEACHERS TRAINED**					NON-QUALIFIED REFUGEE TEACHERS TRAINED***		
	MALE		FEMALE		TOTAL	MALE	FEMALE	TOTAL
	REF	EG	REF	EG				
AL AZHAR UNIVERSITY		24		16	40	30	114	144
ASWAN UNIVERSITY	-	-	-	-	-	20	44	64
ZAGAZIG UNIVERSITY	7	3	25	13	48	30	78	108
6 OCTOBER UNIVERSITY		2	10	8	20	5	65	70
<b>TOTAL</b>	<b>7</b>	<b>29</b>	<b>35</b>	<b>37</b>	<b>108</b>	<b>85</b>	<b>301</b>	<b>386</b>

The evaluation results presented below show that the great majority of the in-service teachers indicated very high satisfaction with the training they received. The highest impact was of the blended learning modes of training in the training outcomes. The next highest impact revealed was between training outcomes and instructors' capacities. This implies that the capacity building for teacher educators who have carried out the training was very effective. Another interesting result revealed that trainees' satisfaction with the teaching and learning materials was very high, meaning that the training materials developed and the RefTeCp e-Toolkit were also very effective. Thus, the instructors' training skills, the quality of the teaching and learning materials, the training resources, and the blended learning mode of teaching and learning made a positive difference in the trained teachers' satisfaction and learning outcomes.

## Evaluation Results

### Subjects and achieved sample of the evaluation

In total 306 of the whole group of trainees responded to the evaluation survey. Concerning the distribution of responses, 25% came from Al Azhar University, 28% from Aswan University, 20% from Zagazig University and 27% from October 6 University. In total, 67% of all those trained were females, with the exemption of trainers where the majority were males.

In the appendix, we provide the frequency table of all key factors measured, namely:

1. Satisfaction with the training sessions
2. Instructors' capacities in refugee teaching and learning
3. Suitability and quality of the refugee teaching and learning materials
4. Learning outcomes from the training programme
5. Satisfaction with the blended learning mode of instruction

The mean of the items measuring these five key factors that determine the quality and successful implementation of the RefTeCp program range from 4.4 to 4.7 on a 5-point Likert scale. This is considered a very high score.

### The reliability of the evaluation instrument

A semi-structured questionnaire was developed based on 20 variables measuring: a) the trainees' satisfaction with the training; 2) the effectiveness of the instructors; 3) the suitability of the teaching and learning materials used for the training; 4) the learning outcomes; and 5) the trainees' satisfaction to the blended training sessions. The following table shows the composite variables, the number of measuring items in each, the mean corrected inter-item correlation coefficients (MIIC) of each composite variable scale, and the result of Cronbach  $\alpha$  reliability coefficient. The reliability test shows that the instrument is very good, considering that above  $\alpha = 0.70$  is a good indicator for the reliability of the measuring instrument.

**Table 2: Reliability test results**

Composite variable scale	Number of items	MIIC	Cronbach's $\alpha$
Training satisfaction	4	0.74	0.880
Instructor's capacity	6	0.76	0.917
Teaching & Learning Materials	3	0.64	0.798
Learning outcomes	5	0.66	0.919
Blended training mode	2	0.76	0.862
All RefTeCp items	20	0.66	0.946

**Table 3: Intercorrelations between the key implementation factors**

	Training	Instructor	Materials	Outcomes	Blended
Training	1.00				
Instructor	.53**	1.00			
Materials	.59**	.59**	1.00		
Outcomes	.48**	.62**	.53**	1.00	
Blended.	.48**	.59**	.47**	.73	1.00
Mean	4.6	4.6	4.6	4.5	4.6
S.D.	.51	.45	.51	.61	.58

\*\* $p < .001$  (two-tail)

Table 3 indicates that among the five sub-scales, measured on a 5-point scale, all the correlation indices were statistically significant at  $p < .001$ . The highest intercorrelation observed is the one between blended modes of training and training outcomes ( $r = .73$ ) compared to the least ones with training satisfaction ( $r = .48$ ) and teaching and teaching and learning materials ( $r = .47$ ). The next highest intercorrelation was between training outcomes and instructors' capacities ( $r = .62$ ).

**Table 4: Multiple regression results of training content satisfaction**

Model	Adjusted R <sup>2</sup>	Std. Error	Durbin-Watson			Model	Beta	t	Sig.
1	.415	.390	1.93			Constant		4.37	.000
Model	Sum Sq.	Df	Mean Sq.	F	Sig.	Instructor	.202	3.28	.001
Regression	34.154	4	8.538	56.03	.000	Materials	.372	6.70	.000
Residuals	46.629	306	.152			Outcomes	.043	0.63	.531
Total	80.763	310				Blended	.156	2.37	.018

- a. Dependent Variable: Training content satisfaction
- b. Predictors: Instructor's capacity; Teaching & Learning Materials; Outcomes; Blended training

In the first regression analysis (Table 4), the focus was placed on identifying the impact of the instructor's refugee teaching capacity, the satisfaction with the teaching and learning materials used, the learning outcomes achieved, and satisfaction concerning the blended mode of training on the level of the training content satisfaction. More specifically:

- 1) The refugee training content.
- 2) How well the subject was covered in the training time available.
- 3) The results and quality of the training in relation to your expectations
- 4) The usefulness of the training in relation to your (anticipated) professional needs.

The results of this analysis show that trainees' satisfaction with the quality of training was highly explained, first by the quality of the teaching/learning materials used (beta= 0.372,  $p = .000$ ), secondly by the instructors' skills (beta= 0.202,  $p = .001$ ), and lastly the blended learning mode (beta= 0.156,  $p = .018$ ).

The value of the adjusted r square is .415 which shows that 41.5% of the explained variation is attributed to these three predictive factors, namely: training materials, instructors' capacities, and blended learning. The remaining 47.5% score is due to other factors that are not included in the model or other uncontrolled factors. The p-value or sig. value = 0.000 which is less than 0.005 and highly significant since the F-test rejects the null hypothesis of zero association. The Durbin Watson (DW) statistic was used as a test for checking autocorrelation in the residuals of the regression analysis. The DW value at 1.93 falls below the 2.0 mean, showing that there is positive autocorrelation, meaning that satisfaction with the training is in line with increases in the other three factors. The step-wise regression analysis showed that trainees' satisfaction with the teaching and learning materials contributed to 34.4% (F Change= 182.14), followed up by the instructors' teaching skills with 5.8% (F Change= 29.76), and lastly the satisfaction with the blended training mode of instruction with 2% (F Change= 10.67).

In the second regression analysis (Table 5), the focus was placed on identifying the impact of the instructors' skills in teaching refugee children, the trainees' satisfaction with the training, the quality of teaching and teaching/learning materials, and the blended mode of training on the training/learning outcomes achieved. In other words, the extent to which the trainees benefitted from the training in terms of the following learning outcomes:

- 1) Knowledge and understanding of the training subject, in accordance with the training courses.
- 2) Tackling refugee children's needs.
- 3) Ability to collaborate and work in teams.
- 4) Specialised knowledge in refugee teaching.
- 5) Ability to locate and analyse information related to the refugee children teaching and learning needs.

Table 5 shows that the overall multiple linear regression test was statistically significant (Adjusted R<sup>2</sup> = 0.60,  $F(4, 306) = 118.01$ ,  $p = .000$ ). It was found that the four factors significantly predicted 60% of the learning outcomes; a result that is considered a very high score. The individual scores show that the blended learning mode was the highest predictor (beta = 0.520,  $p = .000$ ) followed up by the instructors' teaching skills (beta= 0.220,  $p = .000$ ), and lastly teaching and learning materials (beta=0,142,  $p = .004$ ).

The step-wise regression analysis showed that the blended learning mode of training contributed to 53.3% (F Change= 352.19), followed up by the instructors' teaching skills with 5.9% F Change= 44.22), and lastly the satisfaction with the teaching and learning materials with 1.5% (F Change= 11.58).

**Table 5: Multiple regression for outcomes of learning**

Model	Adjusted R <sup>2</sup>	Std. Error	Durbin-Watson			Model	Beta	t	Sig.
1	.602	.389	1.83			Constant		-1.25	.211
Model	Sum Sq.	Df	Mean Sq.	F	Sig.	Instructor	.220	4.40	.000
Regression	71.503	4	17.87	118.01	.000	Materials	.142	2.93	.004
Residuals	48.352	306	.151			Blended	.520	11.33	.000
Total	117.855	310				Training	.030	.627	.531

- a. Dependent Variable: Outcomes of training
- b. Predictors: Instructor's capacity; Teaching & Learning Materials; Blended training; Training satisfaction

In the third regression analysis (Table 6), the focus was placed on identifying the impact of the learning outcomes, the suitability and quality of the teaching and learning materials, the training content satisfaction with the training, the quality of teaching and teaching/learning materials, and the blended mode of training on the instructor's refugee teaching and learning capacity. More specifically,

- 1) Has broad and deep knowledge of the subject.
- 2) Motivates teachers to learn and participate.
- 3) Provides sufficient support and feedback for the learning process.
- 4) Fulfills his/her obligations (is punctual and consistent with regard to lectures, office hours, and grading).
- 5) Provides sufficient teaching materials.
- 6) Explains clearly and answer questions well, using relevant examples when applicable.

Table 6 shows that the overall multiple linear regression test for explaining the instructor's refugee teaching capacity was statistically significant (Adjusted R<sup>2</sup> = 0.51, F (4, 306) = 82.64, p = .000). This implies that 51% of the four key factors tested explain the instructor's refugee teaching and learning capacity. This is a high score that connects learning outcomes, teaching and learning materials, training content, and blended learning to the instructor's capacity to tackle refugee children's cognitive, social, and psychological needs.

The step-wise regression analysis showed that the learning outcomes of training contributed to 39% (F Change= 197.34, at p=.000), followed up by teaching and learning materials with 9% (F Change= 53.08, at p=000), training content satisfaction with 2.4% (F Change= 14.72, at p=000) and lastly the blended learning mode with 1.6% (F Change= 10.19, at p=.002).

**Table 6: Multiple regression results of instructor's refugee teaching capacity**

Model	Adjusted R <sup>2</sup>	Std. Error	Durbin-Watson			Model	Beta	T	Sig.
1	.513	.317	1.92			Constant		7.15	.000
Model	Sum Sq.	Df	Mean Sq.	F	Sig.	Outcomes	.269	4.39	.000
Regression	33.351	4	8.338	82.64	.000	Materials	.255	4.86	.000
Residuals	30.871	306	.101			Training	.168	3.28	.001
Total	64.222	310				Blended	.190	3.19	.002

- a. Dependent Variable: Instructor's capacity
- b. Predictors: Learning outcomes; Teaching & Learning Materials; Training content; Blended training

## Discussion and conclusion

The RefTeCp training content, that is, how well refugee teaching and learning was covered in the training time available; the results and quality of the training in relation to the in-service teachers' expectations and the usefulness of the training in relation to the teachers' professional needs were highly explained by:

- 1) the quality of the teaching and learning materials addressing refugee issues
- 2) the instructors' knowledge and skills in the field of refugee teaching and learning
- 3) the blended learning mode of instruction

It makes sense that the explanatory power of good quality teaching and learning materials to the training content is much higher than the blended mode of instruction and the instructor's capacity in refugee teaching.

The evaluation of the learning outcomes, referring to the increased teacher educators and in-service teachers' capacity in tackling refugee children's educational needs; the accessibility of refugee teachers in Egyptian Higher Education Institutions for continuous professional development; and the institutional capacities built for providing quality education to both Egyptian and refugee teachers were also highly explained by:

- 1) the blended learning mode of instruction
- 2) the instructors' knowledge and skills in the field of refugee teaching and learning
- 3) the teaching and learning materials addressing refugee issues

It is interesting to note in this regression that the blended learning mode proved to be the higher predictor of the in-service teacher training learning outcomes, much stronger than the instructor's capacity in refugee teaching and even more than the teaching and learning materials.

Generally, the RefTeCp capacity building for both Egyptian and refugee teachers has been significantly explained by the instructors' training skills provided in the five training sessions (D3.2), the quality of the teaching and learning materials developed

(D4.2; D4.3) that were used for developing the course modules and supported the implementation of the RefTeCp implementation (D5.1 & D5.3). Above all, the blended training mode applied and the establishment of the ICT-blended learning tools/labs (D3.4) and the organization of the blended learning environment (D5.2) proved to highly contribute to the results achieved.

The RefTeCp capacity building is a continuous process to manage transformations: 1) at the individual level (trainers and teachers); 2) at the institutional level and 3) at the societal level. At the institutional level, all partner Faculties of Education are now in a position to support the continuous implementation of the training of both Egyptian and refugee teachers regardless of the refugee teachers' formal qualifications. This is expected to have an important impact on the role of the partner institutions as providers for refugee teaching and learning which in turn is expected to increase their role as social change makers.

The RefTeCp program has become an integral part of existing study programs in each partner university, thereby further sustaining its continuity and value for involving new faculty members and educating the next generation of teachers in tackling refugee children's educational and psychosocial needs is a significant outcome of the project. Such a contribution, is expected to have a multiplier effect on other universities nationally/regionally/globally, especially through the Euro-Arab Teachers' Network of Refugee and Migrant Education that has been established (D7.4).

The evaluation study shows that the blended learning laboratories established in each partner university have become focal points for supporting teaching staff and pre/in-service teachers, especially refugee teachers. Lending expertise to primary and secondary schools; local/regional government sectors and NGO initiatives dealing with the education, social, psychological, and health needs of refugee children provides additional reasons for the sustainability of the program outputs.

The results also support the assumption that pre-service and in-service teachers (Egyptian and with refugee background) have been equipped and will be continuously being equipped with new knowledge and skills in the field of refugee teaching, and turn them able to respond to the educational, psycho-social-emotional, physical, and cognitive needs of refugee children. For the first time, refugee teachers have the opportunity to attend certified professional development programs at Egyptian Higher Education. Each Faculty of Education at the partner universities has now 9-15 courses (47 in total) for pre-service teachers infused with refugee pedagogies and a professional development diploma program with 14 courses for in-service teachers, targeting Egyptian and refugee teachers, widening their educational offering and contribution to local and global society.

It is already a fact that both Egyptian and refugee teachers have access to a certified professional development program delivered in each partner university which has started to have a considerable impact on pre-service and in-service teacher education. In the future, it is expected to see a shift from attending schools organised by the refugee community which offers limited accessibility and limited coverage of children's education to the public Egyptian schools which will have teachers trained in tackling the educational and psychosocial needs of the refugee children.



Building the capacities of teacher educators, pre-service and in-service teachers in a field of emergencies in education such as refugee education, will inevitably affect and promote the career orientation of the RefTeCp beneficiaries. Strengthening teachers' ability to refugee children's needs positively interact in more effective and meaningful education. Trained teachers become more motivated to improve their teaching methods with a consequent impact on refugee children's accessibility and quality of education that is addressed by SDG4. The development of a Euro-Arab Teachers' Network of Refugee and Migrant Education will boost activities and provide a resource that will result in making a positive difference on refugee education issues both in Egypt, the Middle East region, and Europe.

## APPENDIX

<b>EVALUATION OF THE TRAINING</b> How are you satisfied with:	<i>Very unsatisfied</i>	<i>Unsatisfied</i>	<i>Neither/ Nor</i>	<i>Satisfied</i>	<i>Very Satisfied</i>	<i>MEAN (S.D)</i>
The refugee training content.	1	-	2	30	67	4.6 (.53)
How well the subject was covered in the training time available.	-	1	3	33	63	4.5 (.61)
The results and quality of the training in relation to your expectations.	-	-	4	31	65	4.6 (.58)
Explains clearly and answers questions well, using relevant examples when applicable.	-	-	3	27	70	4.6 (.54)
The usefulness of the training in relation to your (anticipated) professional needs.	-	1	3	30	66	4.6 (.60)
<b>EVALUATION OF THE INSTRUCTOR</b> Please evaluate the instructor by indicating the degree to which you agree or disagree with the following statements	<i>Fully Disagree</i>	<i>Disagree</i>	<i>Neither/ Nor</i>	<i>Agree</i>	<i>Fully Agree</i>	<i>MEAN (S.D)</i>
Has a broad and deep knowledge of the subject.	-	-	1	31	68	4.6 (.54)

<b><u>EVALUATION OF THE TRAINING</u> How are you satisfied with:</b>	<i>Very unsatisfied</i>	<i>Unsatisfied</i>	<i>Neither/ Nor</i>	<i>Satisfied</i>	<i>Very Satisfied</i>	<i>MEAN (S.D)</i>
Motivates teachers to learn and participate.	-	-	2	25	73	4.7 (.50)
Provides sufficient support and feedback for the learning process.	-	1	2	27	70	4.6 (.56)
Fulfills his/her obligations (is punctual and consistent with regard to lectures, office hours and grading).	-	-	3	29	68	4.6 (.59)

<b><u>EVALUATION OF THE TEACHING AND LEARNING MATERIALS</u> How are you satisfied with:</b>	<i>Very unsatisfied</i>	<i>Unsatisfied</i>	<i>Neither/ Nor</i>	<i>Satisfied</i>	<i>Very Satisfied</i>	<i>MEAN (S.D)</i>
Teaching and learning materials for the training.	-	1	3	29	67	4.6 (.60)
Case studies and exercises	-	1	4	29	66	4.6 (.60)
Projects (team and/or individual)	-	1	3	30	66	4.6 (.64)
<b><u>LEARNING OUTCOMES</u> Indicate to what extent you have benefited from the training in terms of the following areas</b>	<i>Very Little</i>	<i>Little</i>	<i>Neither/ Nor</i>	<i>Much</i>	<i>Very Much</i>	<i>MEAN (S.D)</i>
Knowledge and understanding of the training subject, in accordance with the training courses.	-	2	3	29	66	4.6 (.73)
Tackling refugee children's needs.	-	2	8	29	61	4.5 (.74)
Ability to collaborate and work in teams.	-	2	5	26	67	4.5 (.72)

<b><u>EVALUATION OF THE TEACHING AND LEARNING MATERIALS</u></b> How are you satisfied with:	<i>Very unsatisfied</i>	<i>Unsatisfied</i>	<i>Neither/ Nor</i>	<i>Satisfied</i>	<i>Very Satisfied</i>	<i>MEAN (S.D)</i>
Specialized knowledge in refugee teaching.	-	3	5	28	64	4.5 (.72)
Ability to locate and analyze information related to the refugee children teaching and learning needs.	1	1	6	31	61	4.5 (.72)
<b><u>EVALUATION OF THE BLENDED LEARNING MODE.</u></b> How satisfied are you with:	<i>Very unsatisfied</i>	<i>Unsatisfied</i>	<i>Neither/ Nor</i>	<i>Satisfied</i>	<i>Very Satisfied</i>	<i>MEAN (S.D)</i>
The instructor who taught the blended sessions?	-	1	3	26	70	4.6 (.61)
The role of the blended sessions in helping you to better understand the courses	-	1	5	26	68	4.6 (.64)