



# Enhancing Quality of Technology-Enhanced Learning at Jordanian Universities eQTel

Delivery of and Reporting on 3 TEL / E-learning Pilots  
eQTeL (Dev. 3.4)

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Prepared by:  
**Prof. Adnan Atoum**  
**Yarmouk University**





## **WP3 - deliverable 3.1: Design and implement of 3 e-learning courses.**

- 1. English 101 – YU**
- 2. Renewable Energy: HU**
- 3. Communication Lab: PSUT**





## Spring Pilot Study: YU EL English Course

Measures	Experimental Group (E-Learning)	Control Group (Traditional Learning)	P
Q1: Students Attitudes Toward the English course	52.6% <b>69%</b>	51.2% <b>71.6%</b>	Ns.
Q3: Evaluation of E-Learning	67%	-	Moderate
Q3: YU Instructor Evaluation	85.8%	84.8%	Ns.
Q4: Students Course Grades	60.29%	61.34%	Ns.



## Summer Pilot Study

**Study General Objective:** The present study aimed to explore the effectiveness of the e-learning method in teaching EL courses at Jordanian universities in comparison to the traditional method in teaching the same course.

Courses Offered: **The English Course**  
**The Renewable Energy Course**

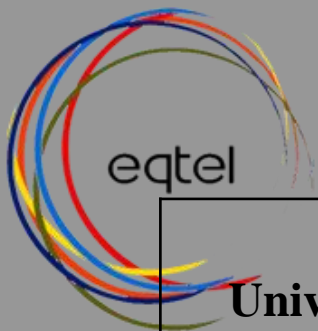
Universities: **YU, PSUT, UoJ & HU**





# Study Questions

1. Were the e-learning courses effective from the perspective of the students?
2. How effective were the instructors teaching the e-learning courses from the perspective of the students in comparison to traditional learning courses?
3. Were there any statistical differences in students' grades in the e-learning courses in comparison with the traditional learning courses?
4. What are students' attitudes toward the English Course?
5. What feedback can be drawn from faculty members, technicians, and students supporting the delivery of the courses?



# Distribution of Sample

University	Group	English Course	Renewable Energy Course	Total
YU	Exp. Group	190	28	417
	Cont. Group	199	-	
PSUT	Exp. Group	22	28	72
	Cont. Group	22	-	
UoJ	Exp. Group	-	42	42
	Cont. Group	-	-	
HU	Exp. Group	24	24	133
	Cont. Group	85	-	
Total Experimental		236	122	358
Total Control		306	-	306
Total				664





## Study Instruments:

1. **Students' Attitudes toward Learning English Questionnaire :** (10 items – 5- Likert type responses that ranged from strongly agree to strongly disagree).
2. **E-Learning Course Evaluation Questionnaire:** (16 items - 5-Likert-Type responses that ranged from strongly agree to strongly disagree).
3. **Instructor Evaluation Scale:** (20 items - 5- Likert type responses that ranged from strongly agree to strongly disagree).
4. **Student's course Grades (Registration Dept.)**
5. **Faculty-Technicians-Students Feedback (Open questions)**



# Results

## Questions 1:

**Were the e-learning courses effective from the perspective of the students?**

**Data based on E-Learning Course Evaluation Questionnaire**



# Q1: Means of students' evaluation of e-learning courses

Scale/University	Courses	
	Universities	English Means Renewable Energy Means
Evaluation of EL Courses Total Scale	YU	3.46 69.25%
	PSUT	2.51 50.10%
	UoJ	- 2.55 50.95%
	HU	4.56 91.30%
	Total	3.51 70.25%
	Both courses	3.15 63.05%
	66.65%	

## Q1: Means of students' evaluation of e-learning courses

EL Evaluation Scale		Courses	
Sub-Scales	Universities	English Means	Renewable Energy Means
<b>Course Content Evaluation</b>	YU	3.42 (68.4%)	4.39 (87.8%)
	PSUT	2.24 (44.8%)	1.71 (34.2%)
	UoJ	-	2.58 (51.6%)
	HU	4.92 (98.5%)	4.47 (89.5%)
	Total	3.53 (70.57%)	3.29 (65.78%)
<b>Instructor Evaluation</b>	YU	3.60 (72%)	3.93 (78.8%)
	PSUT	2.55 (51%)	1.64 (32.8%)
	UoJ	-	2.54 (50.8%)
	HU	4.66 (93.2%)	4.61 (92.3%)
	Total	3.60 (72.07%)	3.18 (63.68%)
<b>Technology Use Evaluation</b>	YU	3.42 (68.4%)	4.18 (83.6%)
	PSUT	2.46 (49.2%)	1.67 (33.4%)
	UoJ	-	2.51 (50.2%)
	HU	4.76 (95.2%)	4.22 (84.5%)
	Total	3.55 (70.93%)	4.19 (62.93%)
<b>Technical Support Evaluation</b>	YU	3.41 (68.2%)	3.39 (67.8%)
	PSUT	2.77 (55.4%)	2.02 (40.4%)
	UoJ	-	2.56 (51.2%)
	HU	3.92 (78.4%)	4.02 (80.4%)



# Results

## Questions 2:

**How effective were the instructors teaching the e-learning courses in comparison to traditional learning courses from the perspective of the students ?**

**Data from the Instructor Evaluation Scales.**

## Q2: Means of students evaluations of their instructors\*

University	Group	English Course	T-Value P	Renewable Energy Course	T-Value P
YU	Exp. Group	4.49 89.8%	.34	4.16 83.2%	2.11
	Cont. Group	4.47 89.4%	Ns.	4.01 80.2% (Inst. M)	Sig.
PSUT	Exp. Group	4.62 92.4%	2.66	4.19 83.8%	.90 Ns.
	Same instructor	4.43 88.68	Sig.	4.29 85.86	
UoJ	Exp. Group	-	-	3.26 65.2%	1.10
	Same Instructor	-	-	3.35 67%	Ns.
HU	Exp. Group	-	-	-	-
Average Experimental Groups		4.55 91.1%	.64	3.87 77.4%	.06
Average Control Groups		4.45 89%	Ns.	3.88 77.67	Ns.

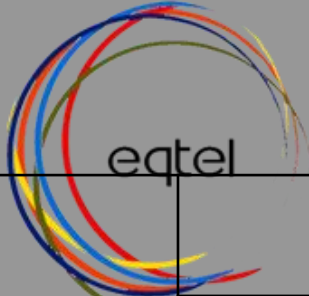


**Q3:**

**Were there any statistical differences in students' grades in the e-learning courses in comparison To the traditional learning courses?**

**Based on Students' Recodes' Grades'**





# Q3: Means of Students Grades

Univer sity	English Course			Renewable Energy Course		
	<b>E-learning Means</b>	Traditional Means*	T-Value P	<b>E-learning Means</b>	Traditional Means*	T-Value P
YU	<b>51.6%</b>	50.1%	1.01 Ns.	<b>73.5%</b>	66.59	2.89 Sig.
PSUT	<b>70.29%</b>	76.95%	1.22 Ns.	<b>74.72%</b>	69.5%	2.15 Sig.
UoJ	-	-	-	<b>73.63%</b>	57.04%	3.56 Sig.
HU	<b>64.90%</b>	56.14%	3.87 Sig.	<b>87.5%</b>	54.47%	5.56 Sig.
Total	<b>62.26%</b>	61.06%	0.22 Ns.	<b>77.34%</b>	61.9%	3.47 Sig.

\* Grades of Similar courses to same instttucor in some courses

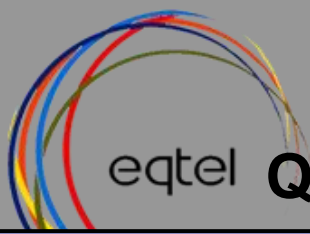


**Q4:**

**What are students' attitudes toward the English Course?**

**Data based on the Students' Attitudes toward the English Course.**





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## Q4: Students Attitudes toward the English Course

University	Method of Learning	Means	T. Value & P
YU	Experimental (e-learning)	3.59 71.8%	1.21 Ns.
	Control (Traditional)	3.46 69.2%	
PSUT	Experimental (e-learning)	-	-
	Control (Traditional)	-	
HU	Experimental (e-learning)	3.89 77.8%	-
	Control (Traditional)	-	
Total	Experimental (e-learning)	3.74 74.8%	2.01 sig.
	Control (Traditional)	3.46 69.2%	





**Q5:**

**What feedback can be drawn from faculty members, technicians, and students supporting the delivery of the courses?**

**Based on analysis of the open Questions**

# Q5: Faculty members feedback

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- 1. All faculty members expressed their satisfaction with the experience especially in terms of the quality of online education in general.**
- 2. Most faculty members that taught e-learning courses for the first time expressed some difficulties at the beginning.**
- 3. Some Faculty members expressed their concern about the seriousness of the students following up with course activities.**
- 4. Most faculty members stated that they faced the same challenges in teaching both face to face and online courses.**
- 5. Most faculty members emphasized the need of orientations to both faculty members and students at the beginning of the semester.**
- 6. Some faculty members expressed the need to have some direct contact time with students during the semester.**



## Q5: Technicians Feedback

1. **More instructions in Arabic for the English course.**
2. **The texts are sometimes rigid or incomprehensible and need action or sounds-voices.**
3. **More videos to explain materials or applications are needed.**
4. **Developing questions bank to each course.**



## Q5: Students Feedback

1. The majority of students liked both courses. Words like “**comfortable, easy, convenient, excellent, fun, self-reliance, Self-assessments, amazing, more communication with professor, flexibility, great, good experience, adequate and saves time** were used often.
2. Small minority of students expressed dislike or discomfort and used words such as **hard to follow, hard course, I am confused, omit certain materials, some material is not clear or need details, need more face to face contact with professor and need more discussions.**
3. Few students expressed difficulties with the system such as it was slow or it went down sometimes.
4. A lot of concern about quizzes in term of too many quizzes or not enough time to prepare in the Renewable Energy Course.
5. Students from 7 different e-learning classes responded to the item “**I would recommend this course to my friends**” with 65% in favor.



# Results Summary

	The English Course		The Renewable Energy Course	
Questions	Experimental Groups (E-Learning)	Control Groups (Traditional Learning)	Experimental Groups (E-Learning)	Control Groups (Traditional Learning)
Q1: Evaluation of E-Learning Courses	70.25%	-	63.05%	-
Q2: Instructors' Evaluation	91.1% ↑	89% (ns.)	77.40%	77.67% (ns.)
Q3: Students' Grades	62.26%	61.06% (ns.)	77.34% ↑	61.9% (sig.)
Q4: Students attitudes Toward the English course	74.8% ↑	69.2% (sig.)	-	-





**Thanks**

