

Since this is a very extensive table, the format and content has not been edited by ActaDV.

Table III. DHE and traditional/no learning characteristics and results

Study (ref)/Year	Country	Population/No. of Participants	Intervention duration	Outcome: instruments	Comparisons	Results
Aldridge (26)/2010	UK	Medical students/ 60	10 days	Skills: 12 test images with dermatological diseases (diagnostic accuracy)	IG: Full DHE: Computer Based Learning-Dermotif software CG: Traditional learning (Printed text)	Skills (IG vs CG): The media diagnosis accurate rate in the IG stayed stable at 12 images (mean is 99%); however, in the control group, the median diagnosis accurate rate was increased from 1 images mean is 16% ($p < 0.0001$) to 6 images (mean is 51%) ($p < 0.0001$).
Amri (27)/2012	Kingdom of Saudi Arabia	Medical students/ 108	3 weeks	Skills: (objective section): clinical case to achieve correct diagnosis of suggested clinical cases Satisfaction (subjective section): 5-point- Likert-scale questionnaire	IG: Full DHE: Offline DHE (digital photograph slides) CG: Traditional learning (Paper-based learning)	Skills (IG vs CG): Regarding the number of correct diagnoses provided by each student of different groups, the analysis of variance has shown that the different groups do not differ statistically between themselves ($F=1.25$; $p=0.29$). Satisfaction: most students agreed or strongly agreed that digital photograph teaching is better than the traditional clinical teaching, as well it encouraged them to learn more about the discussed conditions.
Bredesen (18)/2016	Norway	Nurses/44	3 months	Knowledge: The outcome measures were the number of correct Braden subscale scores of patient cases and the number of pressures ulcerU photos correctly classified before and after training.	IG: Full eEducation: Computer based learning (eEducation program) CG: No education	Knowledge (IG vs CG): 1. sensory perception: 71.3% vs 65.7% ($p=0.372$); 2. moisture: 66.1% vs 60% ($p=0.350$); 3. activity: 63.5% vs 59% ($p=0.500$); 4. mobility: 68.7% vs 69% ($p=0.894$); 5. nutrition: 61.7% vs 55.2% ($p=0.328$); 6. friction/Shear: 68.7% vs 61.9% ($p=0.290$).
Francisco (34)/2014	Spain	Nursing undergraduate students /72	2 hours	Knowledge: Written test	IG: Full eEducation: Computer based learning (software) CG: Traditional learning	Knowledge (IG vs CG): Students using ePULab gave significantly better ($p < 0.01$) learning acquisition scores (from pre-test mean 8.27

					(lecture)	(SD 1.39) 95% CI [7.95, 8.59] to post-test mean 15.83 (SD 2.52) 95% CI [15.25, 16.41] than those following traditional lecture-style classes (from pre-test mean 8.23 (SD 1.23) 95% CI [7.95, 8.51] to post-test mean 11.6 (SD2.52) 95% CI [11.02, 12.18]).
Gerbert (30)/2002	US	Physicians/71	Compete the intervention at their own pace	Skills: Diagnosis correct rate and evaluation plan	IG: Full DHE: Computer based learning CG: No education	Diagnosis correct rate Post-test (IG vs CG): Overall: 71(±8) 95% CI [68.69, 73.31] vs 62(±13) % 95% CI [58.24, 65.76] (p<0.001) Evaluation plan (IG vs CG): Overall: 78(±7) 95% CI [75.98, 80.02] vs 67(±9) 95% CI [64.4, 69.6] (p<0.001)
Sena(29)/2013	Brazil	Medical students/50	15 mins	Knowledge: post-test questionnaire; Skills: check list (10 lists with 1 score for each) and global assessment (9 assessments with 1-5 score for each)	IG: Full DHE: Computer based learning-software (laptop computer with a multimedia software for self-education about detailed rhomboid flap making) CG: Traditional learning (Printed text)	Knowledge (IG vs CG): Mean±SD = 4.44±0.58 95%CI [4.28-4.60] vs 3.32±0.99 95%CI [3.05-3.59] (5 questions for post-test) (p<0.001) Skills (IG vs CG): Mean±SD = 7.72±2.05 95% CI [7.15, 8.29] vs 4.08±4.0 95% CI [2.97, 5.19] (10 checklist) (p<0.002); 29.48±9.40 95% CI [26.87, 32.09] vs 22.68±10.53 95% CI [19.76, 25.60]. (9 global assessment) (p<0.017)
Sasha (31)/2008	US	Medical students/73	4 days	Knowledge: 25-question post-test examination	IG: Full DHE: Online computer-based tutorial (Visual DX integrated morphology module) CG: Traditional learning (Lectures)	Knowledge (IG vs CG): 16.14 ±4.69 95% CI [15.06, 17.22] vs 14.89±3.57 95% CI [14.07, 15.71]. (p=0.20)
Jie (22)/2013	China	Medical students/120	7 weeks	Knowledge: written clinical examination with 100 scores; Skills: diagnosis accuracy	IG: Full DHE: Offline DHE (video record and PPT) CG1: Traditional learning	Knowledge (IG vs CG) <i>clinical examination:</i> Mean±SD 30.7±8.8 95% CI [29.13, 32.27] vs 27.5±8.3 95% CI [26.015, 28.985]

				<p>examination which has five stations (eczema, superficial mycosis, psoriasis, urticaria and drug eruptions), each lasting for 10 min with a total score of 50 (recognize, correct diagnosis and management, and assess the situation);</p> <p>Grades of student performances evaluated by tutors</p> <p>Satisfaction: A five-point Likert scale questionnaire with 16 items was used to evaluate student perceptions of the effectiveness of lecture-based and three paper-based learning styles, ranging from 1 (strongly disagree) to 5 (strongly agree)</p>	<p>(Paper-based learning CG2: Real patient problem-based learning CG3: Paper PBL CG4: Lecture-based learning)</p>	<p><i>written examination:</i> 71.8 ± 10.7 95% CI [69.89, 73.71] vs 71.3 ± 10.8 95% CI [69.37, 73.23]</p> <p>Skills (IG vs CG) Mean±SD: 2.74 ± 0.27 95% CI [2.6434, 2.8366] vs 2.70 ± 0.34 95% CI [2.578, 2.822]</p> <p>Satisfaction (IG vs CG): 4.13 ± 1.28 95% CI [3.672, 4.588] vs 4.00 ± 1.26 95% CI [3.55, 4.45].</p>
Schopf (32)/2012	Norway	Physicians/46	6 months	<p>Knowledge: MCQ (Treatment modalities used/ Referral reduction)</p> <p>Satisfaction: A five-point Likert scale questionnaire</p>	<p>IG: Full DHE: online DHE CG: No education</p>	<p>Knowledge (CG vs IG): Emollients 78% (55/71) 81% (59/73) Topical steroid 83% (59/71) 84% (61/73) Potassium permanganate bath 3% (2/71) 16% (12/73) Burow's solution wet dressing 1% (1/71) 6% (4/73) Calcineurin inhibitor 6% (4/71) 6% (4/73) Wet wrap dressing 3% (2/71) 7% (5/73) Oral antihistamine 14% (10/71) 14% (10/73) Oral antibiotic 0% (0/71) 3% (2/73) Oral steroid 3% (2/71) 4% (3/73)</p>

						<p>Elimination diet 6% (4/71) 10% (7/73)</p> <p>Referred 30% (21/71) 11% (8/73)</p> <p>Referred to dermatologist 86% (18/21) 75% (6/8)</p> <p>Referred to paediatrician 14% (3/21) 25% (2/8)</p> <p>Referred reason Diagnosis uncertain 33% (7/21) 38% (3/8)</p> <p>Referred reason Flare 33% (7/21) 38% (3/8)</p> <p>Referred reason Treatment failure 38% (8/21) 50% (4/8)</p> <p>Referred reason Investigation of allergies 38% (8/21) 25% (2/8)</p> <p>Referred reason Other reasons 14% (3/21) 0% (0/8)</p> <p>Satisfaction (CG vs IG): Sending requests was easy: Mean 4.5 Rang 4-5</p> <p>The advice given was useful: Mean 4.7 Rang4-5</p> <p>Wish for similar service in other specialties: Mean 4.8 Rang 4-5</p>
Soirefmann (33)/2013	Brazil	Medical students/75	Compete the intervention at their own pace	<p>Knowledge: MCQ containing 15 questions</p> <p>Satisfaction: six-statement questionnaire based on the Likert scale</p>	<p>IG: Full DHE: Computer-based learning (multimedia program)</p> <p>CG: Traditional learning (lecture)</p>	<p>Knowledge (IG vs CG): 11.96±1.65 95% CI [11.59, 12.33] vs 11.6±1.63 95% CI [11.23, 11.97]</p> <p>Satisfaction (IG): 1. More than 80% rated the multimedia programme (cybertutor) as friendly and educational.</p> <p>2. More than 60% of the students thought it was a pleasant activity.</p> <p>3. 80% of the students manifested interest in participating in similar activities in other medical topics in the future.</p>
Viguiet (35)/ 2015	France	Rheumatologist/141	3 weeks	<p>Knowledge : 1. Knowledge Adequate identification of the premalignant/malignant nature</p>	<p>IG: Full DHE: Computer-based learning (online training course)</p> <p>CG: No education</p>	<p>Knowledge (IG vs CG): premalignant/malignant skin lesions (Intervention vs Control): AK1 33/71 58% VS 23/70 34%; AK2 19/71 33% VS 19/70 28%; Bowen's disease 34/71 60% VS 36/70 54%; Cutaneous SCC 1</p>

				of the skin lesions 2. Knowledge Adequate identification of the benign nature of the skin lesions3. Impact of online training		30/71 53% VS 27/70 40%; Cutaneous SCC 2 55/71 96% VS 57/70 85%; Mucosal SCC 50/71 88% VS 50/70 75%; BCC1 38/71 67% VS 32/70 48%; BCC2 52/71 91% VS 56/70; Melanoma 55/71 96% VS 59/70 88%; Acral achromic melanoma 31/71 54% VS 20/70 30%; Cutaneous lymphoma 27/71 47% VS 4/70 6%). Benign skin lesions (IG vs CG): SK1 36/71 63% VS 30/70; SK2 40/71 70% VS 29/70 43%; Dermatofibroma 48/71 84% VS 44/70 66%; Comedone 34/70 60% VS 26/70 39%; Ungueal Hematoma 23/71 40% VS 20/70 30%; Plantar wart 36/71 63% VS 27/70 40%; MP 56/71 98% VS 65/70 97%; Epidermal cyst 38/71 67% VS 35/70 52%; Dermatophytosis 47/71 82% VS 64/70 96%
Wahlgren (36)/2006	Sweden	Medical students/116	3 consecutive 17-day-courses+ two 4h sessions	Knowledge: written examination with 80 points (=100%); Satisfaction: questionnaires (4-steps scale including very bad, bad, good, very good)	IG: Blended learning: Conventional learning and computer-based learning CG: Traditional learning (Lecture)	Knowledge (IG vs CG): 81 non-NUDOV students vs 28 NUDOVS students participate in examination: median in NUDOVS group 88.8% points vs median in control group 87.5% units (p=0.11, 95%CI [-0.52, 5.26]); Satisfaction (IG vs CG): 28/31 (90% states the NUDOVS facilitated their learning to a large/very large degree. 26/31(84%) states they achieve knowledge more rapidly than from conventional teaching only. 22/31(71%) states its earlier to understand and learn about diseases and management. The majority were very pleased with the NUDOVS layout (27/31; 87%) and its user-friendliness and clarity (30/31; 97%).
MCQ Multiple choice questions, CG: Control group, IG: Intervention group; PBL: Paper based learning; PPT-Power Point; ePULab: ePressure ulcers lab; NUDOVS is an acronym for Nationellt Undervisningsprogram i Dermatologi Och Venereologi; AK: actinic keratosis; SCC: squamous cell carcinoma; BCC: basal cell carcinoma; SK: Seborrheic keratosis; MP: Molluscum pendulu.						