Effect of Interaction Between Flipped Adaptive Learning Environment and Learning Types (Analytic – Comprehensive) to Develop Skills of Using Web 2.0 Application and Motivation For Teachers Pre – Service

Prof \ Saad Mohamed Emam
Assistant professor of educational technology,
Faculty of Education,
Tanta University

Abstract

The Current Study Tries To Explore The Interaction Between A Flipped Adaptive Learning Environment And Learning Types (Analytic – Comprehensive) To Develop Skills of Some Web (2.0) Application. The Main Study Sample Included (70)Students From Third Class of Faculty of Education, Tanta University. There Is Also A Survey Sample of (15) Students at the Same Class. Tools of The Study Were An Accumulative Test Formed of (50) Items To Measure The Cognitive Aspect of Web Skills (2.0) And An Observation Card Which Contained(5) Main Skills Divided Into (40) Subsidiary Ones. Study Results Demonstrated An Effect of The Flipped Adaptive Learning Environment on Progressing The Cognitive Achievement Aspect of Web (2.0) Application Skills Besides Realizing Effect of Interaction Between A Flipped Adaptive Learning Environment And Learning Types (Analytic – Comprehensive) To Develop Skills of Using Web (2.0) Application And Motivation For Teachers Pre – Service At Faculty of Education , Tanta University**.**

Introduction

To The Rabid Consequent Technological Development In Teaching Strategies Has Contributed Greatly To Make Qualitative Changes In The Educational Process; The Thing Which Made Educational Environment More Flexible And Effective. At The Very Beginning, The Term "Flipped Education" Was Surrounded By A Lot of Questioning And Ambiguity Besides Much Hesitance , But Now We Have A New Style of Teaching Which Blends Between Technology And Education Flexibly. Blending Between The Classical And Electronic Education, Flipped Learning Is Considered An Essential Change In The Educational System Thoroughly. The Idea of Conversing School Role Into House Role Is A Fertile Field For Study And Reaching To Results To Guarantee Applying And Generalizing The Idea Later Which Can Make Learning More Exciting In Addition To Change Teachers' Role For Better (Blair & Maharaj , 2016). In Other Items , Convers Learning Is Centered on Providing Students With Online Materials Outside Class When They Are At Home And Making Good Use of Time Inside Class For Teachers To Discuss Student's Problems , And Marking Home Work (Bergmann & Sams , 2012). Flipped Learning Makes Learners Responsible For Their Education Under The Supervision of Teachers At School or Parents At Home . As For The Idea of Adaptive Learning, It Means That Students Can Learn According To Their Speed And Time. Regardless of Conversion Teachers' Role Into Learners' One, Adaptive Learning Is Suitable For All Students' Type And Styles, Hence; There Is A Rapid Accessibility To Information With No Effort. (Meltem, 2017) Evolved A Flipped Class Model For Primary School Students By Using Adaptive Techniques While Teaching English. That Method Blended The

Flipped and Adaptive Learning Which Led To Improving Students' Performance Level. Thus, Adaptive Learning Aims At Enabling Learners To Use A Course Presentation Way Which Appeals To Their Learning Type, So The Course Should Be Prepared By A Lot of Tools To Ease Conversing School Curricula Into Homes. (Kakosimos, , 2015) Confirmed That There Are Benefits For Using Flipped Adoptive Learning:

1- Techniques of Adaptive Learning Such As Sound Effects, Animated Videos And Flash Cards Maximized Excitement And Students' Motivation For Learning.
2- Making the Educational Process Interesting and Funny.
3- The Continuous Evaluation of Students By Making Electronic Tests Online Besides Practicing Self-Learning.
4- Making Educational Process Flexible and Suitable For Any Time.
5- Helping Teachers To Prepare Their Materials By Many Ways; The Things Which Make Teachers Understand Learners' Needs.

Flipped Learning VS Adaptive One:
Flipped Learning Creates An Atmosphere of Adaptation Which Appeals To Each Student Who Is Able To Access The Educational Content And Watches It At The Suitable Time Through Which A Great Degree of Understanding And Focus Can Be Done(Meltem & Ahmed, 2017).

Web 2.0 Application :
Education Learning Initiative Association (ELI) Defines Web 2.0 Application As set of Free Applications Which Aren't Necessary To Be Bought or Installed Such As (Gmail - Google Talk - Google Calendar - Google Docs - Spread Sheet Presentation - Google Site) . Users Can Use Free Versions or Not Free Ones To Enable Educational Organizations To Benefit From Educational Google Applications.

(Roy, 2011) Sees That Web Applications are Free Available Tools Online Such As Gmail, Google Docs and Presentation Spread Sheet .All These Applications Can be Shared At The Same Time And Modified In A Vital Way.

Methodology
The Current Study Aims At Exploring The Effect of A Flipped Adoptive Learning Environment And Learning Types (Individual, Mass) To Develop Skills of Using Web 2.0 Application And Motivation For The Would-Be Teachers At Faculty of Education. To Verify That Aim, The Study Studied The Pre- Theoretical Variables Studies To Reach To The Best Criteria of Designing Educational Curricula. So We Feel To Need For Designing A Flipped Adaptive Learning Environment To Develop Skills Of Using Web (2.0) Applications For The Would-Be Teachers And Benefit From That Style Is The Problem of The Study, The Community Of The Study Included (70)

Students From Faculty of Education In The Third Class of The Year 2019/2020. The Study Tools An Accumulative Test of (50) Items. And Use SPSS Program To Calculate Consistency Coefficient (Alpha Cronpach) Which Was (0. 89). And An Observing Card Was Used To Measure The Cognitive Aspects of Skills of Using Some Web 2. 0 Application Included (5) Main Skills Distributed Into (40) Subsidiary Ones. These Skills Were Designed To Be Evaluated Directly. The Card Was Used To Measure Performance Level For Each Skill. That Card Was Evaluated By A Group of Specialists To Make Sure Of Its Authenticity, The Study Chose (4) Students To Be Evaluated By (Cooper Equation) Mean of Concordance Coefficient Was (0.93) After Verifying Validity And Consistency of Tools And Survey Experiment In The First Term of Year (2019 -2020). Finishing The Experiment, The Study Did Post Application on Measure Tools. SPSS And (V22) Program Was Used To Do Statistical Results Which Are Discussed.

Instructional Design Model:
In 2013 (Abdellateef Al Gazaar) Formed His Design of 5 Steps (Analysis, Design .Set Up, Production ,Evaluation) And Use Besides Defining Learners' Qualities, Analyzing Environment of Learning And Designing Skillful Goals List Which Included (50) Items Which Are Seen And Modified By Educational Specialists To Reach The Final Form

The Study Hypothecs:-
The Study Tested Three Hypothecs:-
- There Is An Impact of The Flipped Adaptive Learning Environment on Developing Cognitive Achievement Aspect of Skills of Web (2.0) Application For The Would-Be Teachers At Faculty of Education.
- There Is An Impact of The Flipped Adaptive Learning Environment on Developing Cognitive Achievement Aspect of Skills of Web 2.0 Application For The Would-Be Teachers At Faculty of Education
- There Is An Impact of The Flipped Adaptive Learning Environment on Developing Cognitive Achievement Aspect of Skills of Web 2.0 Application For The Would-Be Teachers At Faculty of Education

Results

Table (1) To Test The First Hypothecs, The Study   Used Mono – Direction Variation Analysis For Grades of Post Accumulation Test With The Pre Ones (Accompanying Variable).

Group	Total squares	F d	means Square	F value	Significance level
Pre -measure	18.1	1	18.1	0.73	0.3
Flipped Adaptive Learning Environment	21.5	1	21.5	0.87	0.00
learning type	428.6	1	428.67	17.4	0.00
A\B	22.3	1	22.3	0,90	0.00
Error	1842.7	75	24.57		
Total	159593	79			

In Table (1) An Effect of Learning Type (Comprehensive – Analytic) on Developing Cognitive Achievement Aspect Of Skills of Web 2.0 Application For The Would – Be Teachers At Faculty of Education .Looking At Table (1). It Is Remarked That There Is An Effect At The Favor of Analytic Style; Arithmetic Mean of Analytic Type Was (46.6), The Mean of Comprehensive One Was (42. 05).

Table (2) Results of Two – Way Variation Analysis Accompanying To Grades of Post Observation Card With The Pre Ones (Accompanying Variable).

Group	Total squares	F d	means Square	F value	Significance level
Pre -measure	12.2	1	18.1	1.0	0.319
Flipped Adaptive Learning Environment	65.5	1	21.5	5.37	0.023
learning type	318.6	1	318.60	26.04	0.00
A\B	37.4	1	37.4	3.068	0.084
Error	915.4	75	12.20		
Total	214758	79			

In Table (2) an Effect of Learning Type (Comprehensive–Analytic) On Developing Cognitive Achievement Aspect of Skills of Web 2.0 Application for the Would – Be Teachers At Faculty of Education on Would-Be Teachers .Looking At Table (2), It Is Remarked That There Is An Effect At The Favor of Analytic Style, Arithmetic Mean of Analytic Type Was (53. 62). The Mean of Comprehensive One Was (49. 67).

Table (3) Results of Two – Way Variation Analysis Accompanying to Grades of Post Observation Card With The Pre Ones (Accompanying Variable).

Group	Total squares	F d	means Square	F value	Significance level
Pre -measure	18.1	1	18.1	0.7	0.393
Flipped Adaptive Learning Environment	21.5	1	21.5	0.8	0.00
learning type	428.6	1	428.6	17.44	0.00
A\B	22.3	1	22.3	0.9	0.00
Error	1842.7	75	24.57		
Total	159593	79			

In Table (3) An Effect of Learning Type (Comprehensive–Analytic) on Developing Cognitive Achievement Aspect of Skills of Web (2.0) Application For The Would–Be Teachers At Faculty of Education on Would-Be Teachers .Looking At Table (3) It Is Remarked That There Is An Effect At The Favor of Analytic Style Arithmetic Mean of Analytic Type Was (46.6), The Mean of Comprehensive One Was (42. 05).

Discussion

The Previous Table Results Shows The Following:-

- There Is An Effect of Interaction Between Flipped Adaptive Learning Environment And Learning Types on Developing Cognitive Achievement Aspect of Web Application Skills 2,0 For The Would – Be Teachers
- Flipped Learning Good Way To Make Adaptive Learning Environment More Effect Throw Effort Alternative Sources For Achievement
- Motivation Skills Developed By Adaptive Learning Environment Tasks
- Web 2.0 Application Helped Teacher Pre- Service More Adaptive Practice In Flipping Learn

Conclusion

Flipped Learning Good Strategy for make Learning Environment More Adaptive Tasks for all Student, also Web2.0 Apps Good Tools For Make Learning More Interaction

Recommendations

1. Employing Flipped Adaptive Learning Environment in Teaching Skills for the Would-Be Teachers in Faculty of Education.
2. Caring of Learning Types And Designing Educational Content According To Every Student's Style.
3. Doing Other Study Including Different Skills.
4. Designing Flexible Courses And Curricula Appealing To Skills And Environments of Students

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