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# DECISION SUPPORT SYSTEM FOR HIGHER EDUCATION (RESEARCH` EXAMINERS & REVIEWERS) IN EGYPTIAN

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Abstract: In design decision support system for postgraduate and research' examiners and reviewers of educational studies sector in supreme council of Egyptian universities for 27 facilities plus the institutes that belong of education sector studies to explanation of evaluating a methodology; the methodology is the backbone of most scientific examiners and reviewers experiments. An aim of our research is to develop a computer system to innovation decision support system for Postgraduate and research` Examiners and Reviewers of Educational Studies Sector in Supreme Council of Egyptian universities. while it is difficult to overestimate the importance of various computer-based tools that are relevant to decision making (e.g., databases, planning software, and spreadsheets), this article focuses primarily on the core of a decision support system for postgraduate and research' examiners, the part that directly supports modeling decision problems and identifies best alternatives. For this objective, this paper describes design strategies, online systems to provide solutions to improve postgraduate and research' efficiency using technology to the fullest. costume examiners` of postgraduate and research` movement and the response of masses with reference to decision support system, technical analysis, used in timing the reviewers in this paper, the ontological Education approach to analyzing designers' innovation-idea explanation style. In ontological Education, it is said that to define knowledge as ontology is effective in defining its essential qualities. The effectiveness of the ontological Education approach on our research topic, and concluded that our ontological framework of software designers'

*Keywords*: Decision Support System, Postgraduate and research, Examiners, Educational, Supreme Council

#### 1. Introduction

Technology for the renaissance strategy and sustainable development [1] of Egyptian faculties of education throw the Postgraduate and research` department, program and faculty assessment are important steps in analyzing and discovering strengths and weaknesses of Postgraduate and research` and programs, planning and enhancing instruction and curriculum as well as evaluating and making decisions about Postgraduate and research` students. Evaluation is defined as the act of assigning merit or worth to something about postgraduate and research` examiners and reviewers of educational studies sector. There is a need to do both in academic environments [5]. Furthermore, it is necessary to repeat this process periodically, at the end of each semester and academic year as well as over a specified period of time in order to get a better idea. Indeed, some academic decisions do not lend themselves to comprehensive assessment postgraduate and research within a very short time. There are different but

related forms of evaluation postgraduate and research` in academia including assessment, outcomes measurement, and retention and attrition measurements. Assessment is defined as determining the value [3], significance or extent of something. Outcomes Postgraduate and research is expected to concentrate more on academic and intellectual growth of Postgraduate and research. Assessment techniques of examiners of educational studies sector have been discussed widely in the literature. Both qualitative and quantitative assessment techniques are available [11]. Alternative forms of assessment including curriculum-based [2,9], portfolios, outcomes-based [10] performance- based assessment, and other means of testing postgraduate and research` students have also been developed of examiners of educational studies sector. A number of universities have set up measurement and evaluation units under instructional development offices and carry out senior Postgraduate and research' surveys as part of Postgraduate and research outcome assessment. These units are developing assessment models and are planning the use of results of these efforts to improve instruction and learning[7,9]. The use of qualitative techniques based on Postgraduate and researches data available in university necessitate the use of data warehousing and mining techniques since these databases may be rather large and may be distributed. In addition, decision-support systems [6, 12] have a place in presenting the data in a meaningful and useful way to the evaluators Postgraduate and research student and administrators.

In order to gain an insight, assess Postgraduate and research and evaluate academic performance, there is a need to carry out statistical analyses at student, course, program, department, school and university levels. However, the data needs to be presented in an understandable form to start with. Detailed statistical testing and inferences can then be made [8]. In this work we have aimed at providing a decisionsupport platform for Postgraduate and research' students and academic administrators such that data is made available through the use of standard user interfaces, displays and graphs, as well as in tabular form. This is expected to minimize the time and effort needed to analyze pages of data since they are presented in similar forms for similar objectives. Academic decisions may require extensive analysis of Postgraduate and research student achievement levels. Statistical data can also be used to see the results of important academic decisions. It is necessary to have measurements to make appropriate academic decisions on one hand[9], while on the other hand, there The present postgraduate and research' regulation builds on the experience gained during the past four years, and includes only minor revisions to the semesters specifications, issued for the first time in 2000. The adoption of the credit-hour system aimed at being compatible with advanced scientific institutions, thus facilitating credit transfer between different universities [4,5]. In this regulation, several curricula were updated by adding new courses and/or revising existing ones.

#### **1.1. THESES AND DISSERTATIONS PROCESSING**

After the student completes the Thesis and gets it signed by the Main Advisor, he/she submits two copies of the Thesis to the Responsible Department and a date for a general lecture on the subject of the Thesis (Seminar) is set. After the Seminar [4, 5], the Thesis Main Advisor presents the following to the Department Council, in preparation to submission to the Faculty Council:

a - A report indicating that the Thesis is ready for evaluation, indicating the Thesis title in both Arabic and English.

b - A request for the Thesis Evaluation Committee, including the names of five candidates, one of them the Thesis Advisor (or Advisors, counted as one vote).

c - Four copies of the Thesis written in accordance with the rules and formatting for writing theses are submitted to the Thesis Evaluation Committee.

After the necessary modifications are done and the Thesis is accepted by the Thesis Evaluation Committee, the student submits to the Graduate Studies Administration the following: five copies of the Thesis approved by the Thesis Advisors as well as the Thesis Evaluation Committee and the Department Chair; a CD containing a soft copy of the Thesis and forms; and five hard copies of the

Summary in Arabic and English, approved by the Thesis Main Advisor; in addition to a data sheet signed by the student and advisors.

#### **1.2. THESIS EVALUATION COMMITTEE**

Examiners and reviewers of educational studies sector for diploma and Scientific Theses and Dissertations:

1 - Upon the recommendation of the Department Council, the Faculty Council forms an Evaluation Committee for the Thesis/Dissertation consisting of three faculty members; one of them is the Advisor(s) with one vote, and two other examiners who are Professors or Associate Professors in Egyptian or foreign universities or experts in similar scientific experience provided that at least one of them is not a member of the staff of the Faculty of Education, in that University. The Evaluation Committee is chaired by the most senior member. If a new member is added to the Thesis supervision, the Evaluation Committee shall not be formed unless six months have elapsed since the date of addition of the new advisor, provided that the student has not exceeded the maximum period allowed for the Thesis preparation. The University Vice President for Graduate Studies and Research approves the Evaluation Committee after the approval of the Faculty Council. A Thesis shall not be defended or reviewed before at least two weeks has passed from the date the Committee was officially approved by the university. Approval of the Evaluation Committee is an implicit approval of a 6-month extension for the Thesis. This six month duration is the period of validity of the Evaluation Committee [4,5]. 2 - Members of the Evaluation Committee appointed by the Department Council must have sufficient experience in the specific area of research and have scientific publications in the same area.

3 - In the Evaluation Committee for a Master Thesis, at least one of the examiners shall not be a member of the Faculty of Education, that University staff.

4 - In the Evaluation Committee for a Ph. D. Dissertation, at least one of the examiners shall not be a member of the that University staff.

5 - A faculty member shall not participate in an Evaluation Committee for a student who is related to him/her up to the fourth level.

6 - Upon the request of the Thesis Main Advisor, the Responsible Department Chair and Vice Dean for Graduate Studies and Research approve the date of the defense.

7 - The defense may take place in the presence of two members of the Evaluation Committee provided that the Thesis Advisor is one of them. In case one of the Committee members is not a resident of Egypt, it is sufficient to receive a report from him/her stating his/her assessment of the Thesis.

8 - Each member of the Evaluation Committee shall submit a Thesis report, in addition to a group report using the standard forms prepared by the Graduate Studies for Thesis evaluation. The Thesis defense conclusion and all reports are presented to the Responsible Department Council, then to the Graduate Studies Committee, then to the Faculty Council prior to submission to the University Council.

The Thesis may be completed by the student according to what the committee deems necessary and he/she is granted an extension of not more than six months after the date of the defense provided that the student has not exceeded the maximum period allowed for the Thesis. In such a case, the student is reexamined and a new group report is submitted to the Responsible Department Council with the outcome of the Thesis review and discussions.

#### **1.3. POSTGRADUATE AND DIPLOMA**

The University Council grants the degree of Postgraduate and research Diploma in one of the specializations upon the recommendations of the Faculty of Education Council. The Certificate is granted indicating the title of the Diploma.

#### **1.4 MASTER OF SCIENCE IN EDUCATION**

The University Council grants, upon the recommendation of the Faculty Council, the degree of M. Sc. via the scientific departments. The name of the scientific department (and specialization) and the title of the Thesis shall be stated in the certificate. Other interdisciplinary specializations among different Education departments or in collaboration with foreign distinguished universities may be introduced upon proposal by the Faculty Council and approval of the University Council.

#### 1.5. SUPERVISION [4, 5]

The Faculty Council appoints the Thesis Main Advisor, upon the suggestion of the Responsible Department Council and approval of the Graduate Studies Committee. The Main Advisor shall be chosen from the Professors or Associate Professors of the Faculty. Assistant Professors may also be included in the Supervision Committee. The Supervision Committee may include specialists who are at the same level as Professors or Associate Professors, upon the approval of the Faculty Council. The number of advisors shall not be more than three. The Advisor is appointed while the student is studying the courses and before working on the Thesis, If one of the Thesis Advisors has to travel for a long duration, the Faculty Council may opt to leave the supervision committee unchanged, or to add a new member, or remove the name of the Member who is travelling abroad or both actions. This is done upon the recommendations of the Responsible Department Council and the approval of the Graduate Studies Committee, based on a report presented by the travelling member prior to his travel and endorsed by the Main Advisor, provided that item "a" is implemented. The Thesis Main Advisor may suggest a modification of the advisory committee by adding or removing members or both. The suggestion shall be approved by the Responsible Department Council, the Graduate Studies Committee, the Faculty Council, and the University Vice President for Graduate Studies and Research, provided that item "a" is implemented. The Thesis Main Advisor shall present a report at the end of the Academic Year to the Responsible Department Council describing the progress of the student and recommending continuation or termination of his/her enrollment.

#### **1.6. AWARDING THE DEGREE**

The Faculty Council shall recommend awarding of the Master degree upon the recommendation of the Responsible Department Council and the Graduate Studies Committee when the student fulfills the following requirements:

a. Completion of at least four main semesters from the date of registration.

b. Succeeding in all course requirements

c. Acceptance of the Thesis by the Evaluation Committee and their recommendation.

#### **1.7. DOCTOR OF PHILOSOPHY IN EDUCATION**

Areas of Study That University grants, upon the recommendation of the Faculty of Education Council, the degree of Ph. D. via study in the scientific departments. The name of the scientific department (and specialization) and the title of the Dissertation shall be stated in the certificate.

#### 1.8. COMPLETING THE COMPREHENSIVE EXAM. [4,5]

The supervision of the Dissertation may be joined between a committee determined

by That University and an Advisor from another foreign university or Institution approved by the Supreme Council of Universities in Egypt. In this case, the number of advisors shall not be more than four.

Through reviewing the above our challenges faced the faculties of education in Egypt needs a renaissance of comprehensive development [9], which begins with selecting the reviewers and analysts for the needs of the labor market and designing them in the form of curricula and study programs, including the selection of the best examiners, for the bachelor's, diploma, master's and doctoral degrees depends on the election of examiners for each stage of the above. And the aim of our research is to develop a computer system to innovation decision support system for Postgraduate and research Examiners and Reviewers of Educational Studies Sector in Supreme Council of Egyptian universities. while it is difficult to overestimate the importance of various computer-based tools that are relevant to decision making (e.g., databases, planning software, and spreadsheets), this article focuses primarily on the core of a decision support system for postgraduate and research' examiners, the part that directly supports modeling decision problems and identifies best alternatives. For this objective, this paper describes design strategies, online systems to provide solutions to improve postgraduate and research` efficiency using technology to the fullest. costume examiners` of postgraduate and research' movement and the response of masses with reference to decision support system, technical analysis, used in timing the reviewers in this paper, the ontological Education approach to analyzing designers' innovation-idea explanation style[9]. In ontological Education, it is said that to define knowledge as ontology is effective in defining its essential qualities. The effectiveness of the ontological Education approach on our research topic, and concluded that our ontological framework of software designers'

#### **1.9. RATIONALE AND OBJECTIVES**

The system aim is to present academic decision makers with facilities of Education in Egypt for the evaluation of academic performance as well as presenting them with a tool for organized information access. It is also aimed to shed new light on potentially new techniques that can be used in the evaluation of major elements of academic decisions. The above may be achieved with the following objectives:

- Analysis and design of a new academic performance evaluation criteria.

- An in-depth understanding and demonstration of the parameters affecting academic performance In Egyptian universities.

- Analysis, design and development of a software system suitable for facilities of Education using the semester based education system. This system would be a complete package

Unlike most current systems, which necessitate manual data extraction and evaluation by users.

- Development of intelligent, object-based or object-oriented user interfaces for easy

navigation.

And obtainment of required information from the databases.

- Development of a general database application programmer's interface for future adaptation to

Other Egyptian universities.

- Design and development of a modular object based/ oriented software package providing

Solutions to the ideas proposed above [8].

- Demonstration of powerful techniques for achieving the aims of development the facilities of Education the project in Egypt.

#### 2. EXCREMENTAL WORK

Systems analysis is a necessary part of development of every engineered software. This is found to be useful for this particular development due to the complex nature of data to be presented. The particular methodology used for system development is the Structured Systems Analysis and Design Methodology (SSADM). By using the SSADM, data and control flow in a system can be determined and shown in the systems analysis phase. The PADSS system interacts with users and the various databases to produce, display, print or save the results obtained. The Data Flow Diagram (DFD) of Fig. 2 shows the main interaction types at near-conceptual level. The system design is modular and allows the addition of necessary modules at a later stage to the software package. The system is GUI based and hence necessitates little input from the users, achieving results with mere mouse clicks. Object based techniques have been used in developing the software. A purpose-designed application database is designed and implemented. The data available in the university databases are converted, calculated and sorted to form the core of the package database. This is done in order to have a maintainable standard database interface, to de-couple the development from local university databases and to provide a Database User Interface (DUI) or `Database API' to which all other available database formats, from any university can be converted. Furthermore, with this technique ease and speed of access are the aims to be achieved. The superiority of even simple linear decision models over human intuitive judgment suggests that one way to improve the quality of s decision support system for postgraduate and research' examiners and reviewers of educational studies sector (DSSPREESS) is to decompose (DSSPREESS) problem into simpler components that are well defined and well understood. Studying a complex system built out of such components can be subsequently aided by a formal, theoretically sound technique. The process of decomposing and formalizing a problem is often called modeling. Modeling amounts to finding an abstract representation of a realworld system that simplifies and assumes as much as possible about the system, and while retaining the system's essential relationships, omits unnecessary detail, include the Education structure and the creative design witch including three levels the internal level,

external level, the conceptual level so, transfer that to relation form of tables window for produce reports form the external level. Building a model of decision support systems, by using Microsoft Visual Basic 6.0 for 32-bit windows Development, allows for applying scientific knowledge that can be transferred across problems and often across domains. It allows for analyzing, explaining, and arguing about a decision support system for postgraduate and research' examiners and reviewers of educational studies sector (DSSPREESS), in Fig.1: Proceeding of implementations of decision support system for postgraduate and research' examiners and reviewers (DSSPREESS), Data available in the university academic databases are not used directly, as these are not optimized for the purpose of this project. Two types of files are used to form the PADDS database. The necessary data from the database of the university are converted into text and MDB (Microsoft Database Format) files after applying the necessary calculations. As can be seen no new data type is produced. In many applications a new data file type is produced specially for the application. This feature has one big advantage; any other database or statistics program can use the PADDS database. There is no need to have any special application to convert, to see and to use the produced database. The reason for using the text and MDB file types is based on a simple logic. Text files are easily manageable and the MDB file type is native to many well-known programming languages; hence, there is no need to use any extra interface program to maintain compatibility.

#### 3. RESULTS AND DISCUSSIONS

Decision support system for postgraduate and research` examiners to recognition that all postgraduate and research' students deserve an excellent academic experience of learning, teaching and assessment, the protection and continuation of Egypt-wide external peer review by an educational studies sector in supreme council of government and funding decisions, the effective identification of excellence in learning, teaching and assessment, through integrated quality assurance and Teaching Excellence Framework, the extension of postgraduate and research' students engagement in quality assurance and the enhancement of learning and teaching, maintaining and enhancing the worldleading reputation of Egyptian higher education, underpinned by international respect for its excellent quality assurance, a single register and 'gateway' for all higher education providers, a contextualized approach to external review, taking into account an institution's track record and capacity to manage its own standards and quality, and a greater focus on enhancement, provision of assurance to postgraduate and research` students, employers, the public and governments, cost-effective approaches to quality assurance, rapid and proportionate investigation of concerns when they arise, the identification of emerging issues and trends, with action taken to promote or halt them as necessary. Components of decision support systems models while mathematically a model consists of variables and a specification of interactions among them, from the point of view of decision support system for postgraduate and research` examiners and

reviewers of educational studies sector (DSSPREESS) making a model and its variables represent the following three components: a measure of preferences over decision support system for postgraduate and research` examiners of educational studies sector (DSSPREESS)objectives, available (DSSPREESS) options, and a measure of uncertainty over variables incensing the(DSSPREESS), and the outcomes. Preference is widely viewed as the most important concept in for postgraduate and research` examiners and reviewers (DSSPREESS) making. Outcomes of decision support systems, process are not all equally attractive and it is crucial for decision support systems, maker to examine these outcomes in terms of their desirability. Preferences can be ordinal (e.g., more income is preferred to less income), but it is convenient and often necessary to represent them as numerical quantities, especially if the outcome of the decision support system for postgraduate and research' examiners of educational studies sector (DSSPREESS) process consists of multiple attributes that need to be compared on a common scale. Even when they consist of just a single attribute but the choice is made under uncertainty, expressing preferences numerically allows for trade-of between desirability and risk. The second component of decision support systems, problems is available decision support systems, options. Listing the available decision support systems, options is an important element of model structuring. Fig.2: components models of decision support system for postgraduate and research' examiners and reviewers (DSSPREESS).

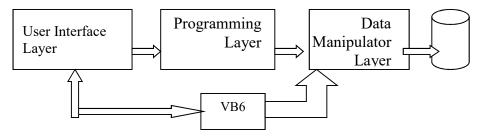


Fig.1. Proceeding of implementations of decision support system for postgraduate and research` examiners of educational studies sector (DSSPREESS)

Throw the elements of postgraduate and research' environment in figure 2, between Faculty of Education Department, Support Facilities, Support Faculties, Research Plan, Scientific Publishing, and Universities cooperation. We find the main engine of all these elements in the postgraduate studies and research progress to benefit the local community and the international is the examiner, reviewer and analyst.

Our component work Throw the department in faculties of Education: Curriculum and teaching methods, Pedagogy Psychological health, Comparative Education, Kindergarten, Languages (English), and Languages (French). And cooperation with other faculties such as; Specific education (Technology- Economic–Art Education), Faculty of Science (Mathematical-Chemistry-Physics-), Faculty of Arts "Literature" (English-French...) And Fields (agricultural, commercial, industrial).

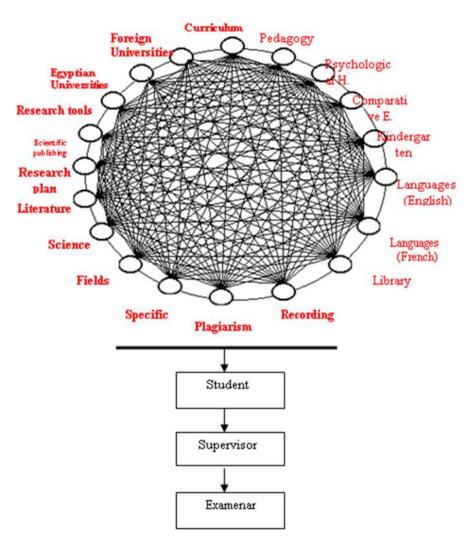
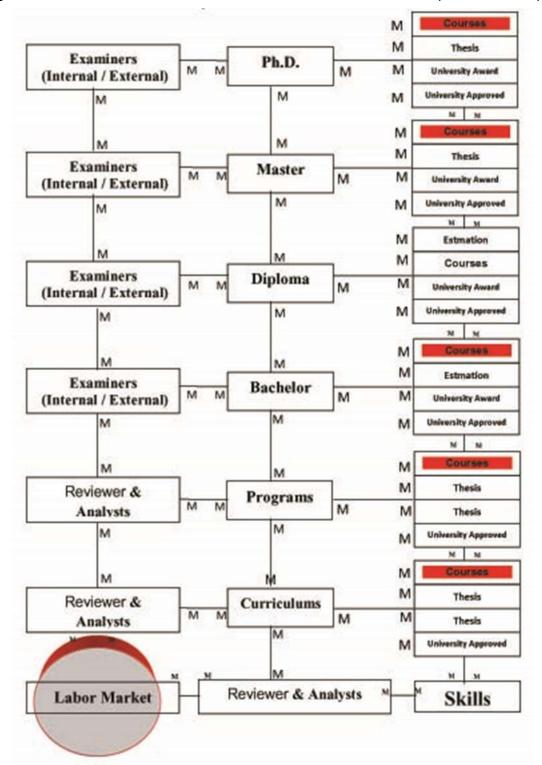


Fig.2. Components models of decision support system for postgraduate and research` examiners of educational studies sector (DSSPREESS)

Cooperation with Egyptian Universities and Foreign Universities, So the postgraduate and research' needs: Library, Recording, software of Plagiarism, Research plan funded and approved, Scientific publishing and scientific journals, Research tools of Center for production of technology. And one or three Database for the following: Student (Database for students: general and exact specialization and title of Master, Doctorate) and controls rule, Supervisor (Database: general specialization, accurate and thesis supervisor) and controls, and Examiners (Database: general and exact specialization, number of theses discussed) and controls The third element of decision support system for postgraduate and research' examiners and reviewers of educational studies sector (DSSPREESS), models is uncertainty. Uncertainty is one of the most inherent and most prevalent properties of knowledge, originating from incompleteness of information, imprecision, and model approximations made for the sake of simplicity. It would not be an exaggeration to state that real-world decision support system for postgraduate and

research` examiners and reviewers (DSSPREESS) not involving uncertainty either do not exist or belong to a truly limited class. Fig.3: the relational of decision support system for postgraduate and research` examiners of educational studies sector (DSSPREESS).



#### Fig.3. The relational Of Decision Support System for Postgraduate and Research` Examiners of Educational Studies Sector (DSSPREESS)

Decision support systems making under uncertainty can be viewed as a deliberation: determining what action should be taken that will maximize the expected

gain. Due to uncertainty there is no guarantee that the result of the action will be the one intended, and the best one can hope for is to maximize the chance of a desirable outcome. The process rests on the assumption that good decision support systems, is one that results from a good decision support systems making process that considers all important factors and is explicit about decision support systems alternatives, preferences, and uncertainty. It is important to distinguish between good decisions and good outcomes. By a stroke of good luck a poor decision support systems can lead to a very good outcome. Similarly, very good decision support systems, can be followed by a bad outcome. Supporting decision support systems means supporting the decision support systems making process so that better decision support systems, are made. Better decision support systems can be expected to lead to better outcomes. Based software package has been designed and developed called the Performance-based Academic Decision Support System, which provides a flexible and sophisticated environment for presenting the ideas proposed as well as having the flexible infrastructure for future expansion. this package facilitates the analysis by providing a user-friendly environment, useful graphical charts, easily readable tables, opportunity of different point of views to the analysis, and sharing of information. the package is designed with many useful features like the `toolbox' feature, which allows the developers to add future packages easily and elements of post graduate search engine' which helps the user to find personal and academic information about any examiners recorded in the studies sector in supreme council database. Finally, update ability of the data used by the package has been developed, allowing use of new data added to the studies sector in supreme council database during each new academic semester.

Decision support system for postgraduate and research' examiners and reviewers (DSSPREESS) are interactive, computer-based systems that aid users in judgment and choice activities. They provide data storage and retrieval but enhance the traditional information access and retrieval functions with support for model building and modelbased reasoning. They support framing, modeling, and problem solving. Typical application areas of (DSSPREESS) are management and planning in business, health care, the military, and any area in which management will encounter complex decision support systems situations. Decision support systems are typically used for strategic and tactical decision support systems, faced by upper-level management decision support systems with a reasonably low frequency and high potential consequences in which the time taken for thinking through and modeling the problem pays of generously in the long run. There are three fundamental components of (DSSPREESS) Database management system (DBMS). A DBMS serves as a data bank for the (DSSPREESS) It stores large quantities of data that are relevant to the class of problems for which the (DSSPREESS) has been designed and provides logical data structures (as opposed to the physical data structures) with which the users interact. A DBMS separates the users from the physical aspects of the database structure and processing. It should also be capable of informing the user of the types of data that are available and how to gain access to them.

- Model-base management system (MBMS). The role of MBMS is analogous to that of a DBMS.

Its primary function is providing independence between specific models that are used in a (DSSPREESS) from the applications that use them. The purpose of an MBMS is to transform data from the DBMS into information that is useful in decision support systems, making. Since many problems that the user of (DSSPREESS) will cope with may be unstructured, the MBMS should also be capable of assisting the user in model building.

- Dialog generation and management system (DGMS). The main product of an interaction with (DSSPREESS) is insight. As their users are often managers who are not computer-trained, (DSSPREESS), need to be equipped with intuitive and easy-to-use interfaces.

#### 3.1. ANALYTIC (DSSPREESS)

An emergent class of (DSSPREESS) known as decision support systems analytic(DSSPREESS), applies the principles of decision support systems theory, probability theory, and decision support systems analysis to their decision support systems models. Decision support systems, theory is an axiomatic theory of decision support systems, making that is built on a small set of axioms of rational decision support systems making. It expresses uncertainty in terms of probabilities and preferences in terms of utilities. These are combined using the operation of mathematical expectation. The attractiveness of probability theory, as a formalism for handling uncertainty in (DSSPREESS) lies in its soundness and its guarantees concerning long-term performance. Probability theory is often viewed as the gold standard for rationality in reasoning under uncertainty. Following its axioms offers protection from some elementary inconsistencies. Their violation, on the other hand, can be demonstrated to lead to sure losses. Decision support systems analysis is the art and science of applying decision support system for postgraduate and research' examiners of educational studies sector (DSSPREESS) theory to real-world problems. It includes a wealth of techniques for model construction such as methods for elicitation of model structure and probability distributions that allow minimization of human bias, methods for checking the sensitivity of a model to imprecision in the data, computing the value of obtaining additional information, and presentation of results.

#### **3.2. CONCEPTUAL LEVEL**

Conceptual Level of Decision Support System for Postgraduate and Research` Examiners of Educational Studies Sector by writing all entities in rectangle, and attribute in ovals, for example in Fig.4: Entity of Examiners (Internal/ External) Ph.D. Construction, so we designed following: The need for the labor market Curriculum Programs Bachelor Diploma, Master and Ph.D. Reviewer & analysts Examiners(Internal/External)Thesis, Degree Prof/Associated) Local/International Date of approval of Examiners Estimation, Courses, Thesis, University Award, University Approved Associated Prof. Joint supervision with other countries, Recorded Date

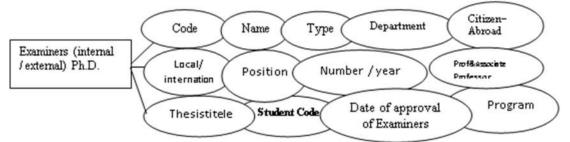


Fig.4. Entity of Examiners (internal / external) Ph.D. Construction

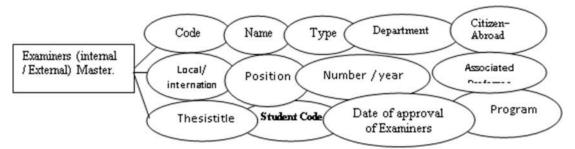


Fig.5. Entity of Examiners (internal / external) Master. Construction

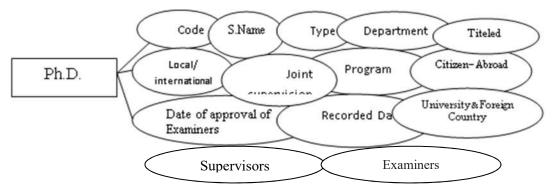


Fig.6. Entity of Ph.D. Construction

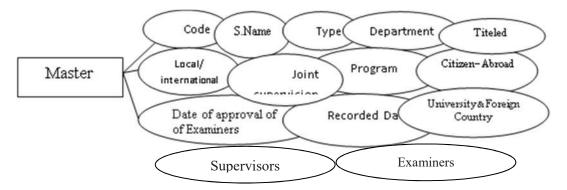


Fig.7. Entity of Master Construction

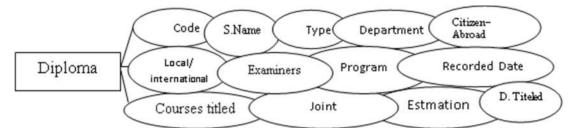


Fig.8. Entity of Diploma Construction

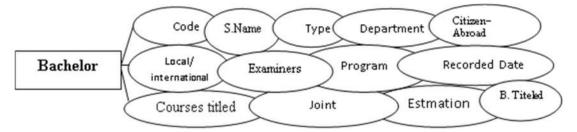


Fig.9. Entity of Bachelor Construction

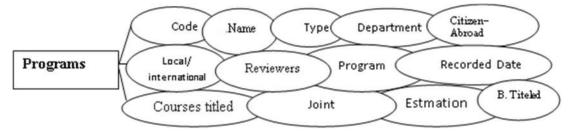


Fig.10. Entity of Programs Construction

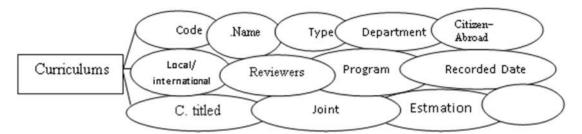


Fig.11. Entity of Curriculums Construction

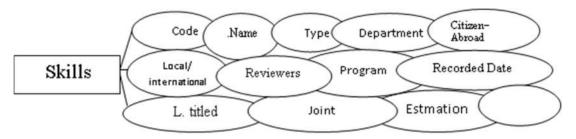


Fig.12. Entity of Skills Construction

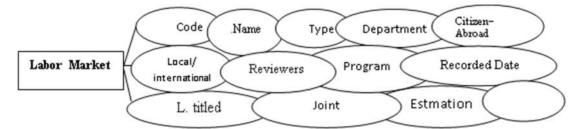


Fig.13. Entity of Labor Market Construction

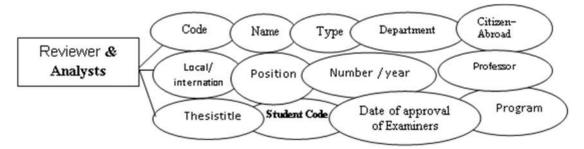


Fig.14. Entity of Reviewer & Analysts Construction

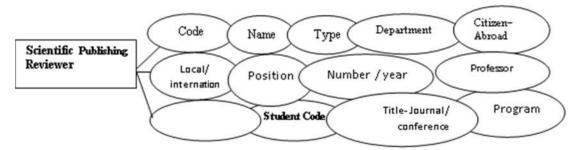


Fig.15. Entity of Scientific Publishing Reviewer Construction

These methods have been under continuous scrutiny by psychologists working in the domain of behavioral decision support systems theory. Normative systems are usually based on graphical probabilistic models which are representations of the joint probability distribution over a model's variables in terms of directed graphs. Directed graphs, The former denote variables that are under the decision support systems maker's control and can be directly manipulated, Once a model has been created, it is optimized using formal decision-theoretic algorithms. Decision support systems, analysis is based on the empirically tested paradigm that people are able to reliably store and retrieve their personal beliefs about uncertainty and preferences for deferent outcomes, but is much less reliable in aggregating these fragments into a global inference. The role of decision support systems analytic (DSSPREESS) is to support them in their weaknesses using the formal and theoretically sound principles of statistics. The approach taken by Decision Support System for Postgraduate and Research` Examiners of Educational Studies Sector (DSSPREESS) analysis is compatible with that of(DSSPREESS) The goal of decision support systems analysis is to provide insight into a decision support systems. This insight, consisting of the analysis of all relevant factors, their uncertainty, and the critical nature of some assumptions, is even more important than the actual recommendation.

#### 3.3. INTERNAL LEVEL AND MIXED SYSTEMS

In many business and Education problems, interactions among model variables can be described by equations which, when solved simultaneously, can be used to predict the effect of Postgraduate and Research` Examiners and Reviewers, One special type of simultaneous equation model is known as the structural equation model (SEM), which has been a popular method of representing systems in econometrics. An equation is structural if it describes unique, independent causal mechanism acting in the system. Structural equation models offer significant advantages for policy making. Often a decision maker confronted with a complex system needs to decide not only the values of policy variables but also which variables should be manipulated. A change in the set of policy variables has a profound impact on the structure of the problem and on how their values will propagate through the system.

#### **3.4. USER INTERFACES**

Decision Support System for Postgraduate and Research` Examiners of Educational Studies Sector while the quality and reliability of modeling tools and the internal architectures of (DSSPREESS) are important, the most crucial aspect of (DSSPREESS) is by far their user interface. As shown in Fig.16: main window of user interfaces "basic data" as dropdown window, and Fig.20: Main Window of User Interfaces "basic Data" Scientific Publishing Reviewer" Internal and External". Systems with user interfaces that are cumbersome or unclear or that require unusual skills are rarely useful and accepted in practice. The most important result of a session with a (DSSPREESS) is insight into the decision support system for postgraduate and research` Examiners of Educational Studies Sector (DSSPREESS) In addition, when the system is based on normative principles, in Fig.17: main window of user interfaces "Exact Sample" as dropdown window, it can play a tutoring role; one might hope that users will learn the domain model and how to reason with it over time, and improve their own thinking. a good user interface to Decision Support System for Postgraduate and Research` Examiners of Educational Studies Sector (DSSPREESS) should support model construction and model analysis, reasoning about the problem structure in addition to numerical calculations and both choice and optimization of decision support systems variables. We will discuss these in the following sections. Support for model construction and model analysis user interface is the vehicle for both model construction and for investigating the results. Even if a system is based on a theoretically sound reasoning scheme, its recommendations will be as good as the model they are based on. Furthermore, even if the model is a very good approximation of reality and its recommendations are correct, they will not be followed if they are not understood. Without understanding, the users may accept or reject a system's advice for the wrong reasons and the combined decision-making performance may deteriorate even below unaided performance. A good user interface should make the model on which the system's reasoning is based transparent to the user. Modeling is rarely a one-shot process, and good models are usually refined and enhanced as their users gather practical experiences with the system recommendations. It is important to strike a careful balance between precision and modeling efforts; some parts of a model need to be very precise while others do not. A good user interface should include tools for examining the model and identifying its most sensitive parts, which can be subsequently elaborated on. Systems employed in practice will need their models refined, and a good user interface should make it easy to access, in Fig.18,19: main window of user interfaces "Reports" as dropdown window.

: Data Princ	iple Role	Reports	Technical Supports	Exit
Faculty of Education Departm	ient 🕨	Curriculum and Teaching Methods Department		
Examiners Ph.D.		Pedagogy Department		
Examiners Master	•	Psychological health Department		
Examiners Diploma		Comparative education Department		
Supervisor		Kindergarten Department		
Degrees	•	Languages (English) Department		
Programs		Languages (French) Department		
Curriculums	1			
Skills				
Labor Market				
Reviewer Analysts				
Research Plan				
<b>Research Facilitiess</b>				
Scientific Publishing	•			
Support Faculties	- D			
Universities cooperation	+			
Exit				

Fig.16. Main Window of User Interfaces "Basic Data"

Basic Data	Principle Role	Reports	Technical Supports	Exit
2	Faculty of Education Department	•	Curriculum and Teaching Methods Department	ľ.
	Support Facilities	•	Pedagogy Department	
	Support Faculties	×.	Psychological health Department	
	Research Plan		Comparative education Department	
	Scientific Publishing		Kindergarten Department	
	Universities cooperation		Languages (English) Department	
	Supervisor		Languages (French) Department	
	Examiners PH.D.	- × 🗖		
	Examiners Master	•		
	Examiners Diploma	•		
	Reviewer Analysts	•		
	Labor Market			
	Skills	•		
	Curriculums			
	Programs	•		

Fig.17. Main Window of User Interfaces "Exact Sample"

Basic Data	Principle Role	Reports	Technical Su	ipports Exit	_	
2		Faculty of Education	on Department	Curriculum and Teaching Methods Department	•	Graph Report
		Support Facilities	•	Curriculum and Teaching Methods Department	•	Wards Report
		Support Faculties	•	Pedagogy Department	- • T	
		Research Plan	•	Psychological health Department		
		Scientific Publishir	ig 🕨	Comparative education Department	->	
		Universities coope	ration 🔸	Kindergarten Department	->	
		Student	•	Languages (English)Department		
		Examiners	•	Languages (French) Department	- +	
		Programs	• 1			
		Curriculums	•			
		Skills	•			
		Labor Market	•			
		Reviewer Analysts	•			

# Fig.18. Main Window of User Interfaces "Reports Sample" Department of Faculty of Education

Basic Data	Principle Role	Reports	Technical Su	ports		Exit		
Deski, Deda			cation Department	P converti				
		Examiners	•	Ph.D.	•	Internal	•	Graph Report
		Programs Curriculums Skills Labor Market	, , ,	Master Diploma	;	External	,	Wards Report
		Reviewer Anal	ysts +					

Fig.19. Main Window of User Interfaces "Reports" PH.D. Examiners Internal and External

sic Data Principle Ro	ole		Repor	ts	Techni	cal Supports	
Faculty of Education Department							
Examiners Ph.D.							
Examiners Master	•						
Examiners Diploma	- 1						
Supervisor	- >						
Degrees	- 21						
Programs							
Curriculums							
Skills							
Labor Market							
Reviewer Analysts							
Research Plan							
Research Facilitiess	- + <u> </u>						
Scientific Publishing	•	Journal	•	International	•	Internal Reviewer	
Support Faculties	•	Conference		Local	•	External reviewer	
Universities cooperation	• T						-
Exit							
	_						

Fig.20. Main Window of User Interfaces "basic Data" Scientific Publishing Reviewer "Internal and External" Support for reasoning about the problem structure in addition to numerical calculations.

While numerical calculations are important in Decision Support System for Postgraduate and Research' Examiners of Educational Studies Sector (DSSPREESS) reasoning about the problem structure is even more important. Often when the system and its model are complex it is insightful for the decision support systems, maker to realize how the system variables are interrelated. This is helpful in designing creative decision support system for postgraduate and research' examiners of educational studies sector (DSSPREESS) options but also in understanding how policy decision support systems will impact the objective.

#### 3.5. OPTIMIZATION OF (DSSPREESS)

Many decision support systems have an inflexible structure in the sense that the variables that will be manipulated are determined at the model-building stage. This is not very suitable for planning of the strategic type when the object of the decision support systems making process is identifying both the objectives and the methods of achieving them. For example, changing policy variables in a spreadsheet-based model often requires that the entire spreadsheet be rebuilt. If there is no support for that, few users will consider it as an option. This closes the world of possibilities for inflexible reframing of a decision support systems, problem in the exploratory process of searching for opportunities. Support for both choice and optimization of decision support systems, variables should be an inherent part of (DSSPREESS).

#### **3.6. GRAPHICAL INTERFACE**

Insight into a model can be increased greatly at the user interface level by a diagram representing the interactions among its components; for example, a drawing of a graph on which a model is based, such as in Postgraduate and Research` examiners and reviewers Structures, This graph is a qualitative, structural explanation of how information from the independent variables to the dependent variables of interest. As models may become very large, it is convenient to structure them into submodels, groups of variables that form a subsystem of the modeled system. Such submodels can be again shown graphically with interactions among them, increasing simplicity and clarity of the interface. As example in postgraduate and research` examiners and reviewers shows a submodel-level view of a model developed in (DSSPREESS). Note that the graph in Entity is an expanded version of the teaching expenditures submodel in components models of decision support system for postgraduate and research' examiners and reviewers (DSSPREESS). The user can navigate through the hierarchy of the entire model in her quest for insight, opening and closing submodels on demand. Some pointers to work on user interfaces of decisionanalytic systems can be found in.

#### 3.7. ASSESSMENT TO DEVELOPED SYSTEM

To evaluate the system developed from the point of view of ease of use, usage, adaptability, expandability, ease of data update and cost to operate. The system design has been carried out with ease of use being one of the highest criteria in the design of the software. It has an extremely user-friendly Graphic User Interface (GUI). This allows the obtainment of all statistics and information with a few mouse clicks. All selections are given as a combo-box presentation allowing point and click operation. The only place for user data entry is when using the student search engine.

The software has not yet entered widespread use. However, two different configurations have been developed. The advantage of the client-server version is that a central database can be maintained which will be updated centrally and all client user names and passwords can be controlled at the server side, hence allowing security and confidentiality. The software is highly adaptable and expandable due to its modular nature of design based on software engineering principles. Additional functionality can be added using the Toolbox section, while adaptability to other university databases is provided by the use of a novel Database. In this way, any university database can be filtered and interfaced to the software using the facilities provided. The data update is the most time consuming operation within the software. As the data update involves the pre-filtering and formation of the new database, it takes a rather long time. However this is well worth waiting for since the database access is then almost instantaneous even for the most difficult search operations. There is no cost to operate the software as it can be used by non-experts. The only cost foreseen is in the maintenance of the client-server version of the software. This will need the attention of an operator in order to manage access, privileges, user profiles and data update over the network.

#### 4. CONCLUSION

This system given away of educational studies sector in supreme council of Egyptian universities to the expertise, innovation, collaboration, accountability, integrity between the faculties of education as technology for the renaissance and sustainability development of the faculties of education in Egypt. We believe that the proposed approach will deliver a number of benefits and address concerns about the current model. It will ensure a high core level of quality and standards, coherently applied across Egypt, and other sectors of Egyptian Education within a wider academic infrastructure that can accommodate different national approaches, as in Engineering. It will introduce a greater focus on student outcomes, and provide useful, accessible information for students and employers. It will free up providers' resources to focus on their core activities, while encouraging enhancement and the sharing of good practice. And finally, it will protect the international reputation of Egyptian higher education. decision support system for postgraduate and research' Examiners of educational

studies sector (DSSPREESS) are powerful tools integrating scientific methods for supporting complex decision support systems, with techniques developed in information science, and are gaining an increased popularity in many domains throughout the theoretical and analytical of this paper which led us for new 190 investigation research point. They are especially valuable in situations in which the amount of available information is prohibitive for the intuition of an unaided human decision support system for postgraduate and research' examiners of educational studies sector (DSSPREESS) maker and in which precision and optimality are of importance. Decision support systems aid human cognitive deficiencies by integrating various sources of information, providing intelligent access to relevant knowledge, aiding the process of structuring, and optimizing decision support systems. Normative decision support system for postgraduate and research' examiners of educational studies sector (DSSPREESS) offer a theoretically correct and appealing way of handling uncertainty and preferences in decision support system for postgraduate and research' examiners of educational studies sector (DSSPREESS) They are based on carefully studied empirical principles underlying the discipline of decision support systems, analysis and they have been successfully applied in many practical systems. We believe that they offer several attractive features that are likely to prevail in the long run as far as the technical developments are concerned.

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