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Interactive Software Quality as a tool for simplified accounting (SICS), educational resource in the classroom with Invisible learning

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Abstract*— The integration of ICT in education contributes to the incorporation of interactive learning software as a teaching tool. the purpose of this study is to show the quality of the SICS as a teaching resource in the classroom with invisible learning, by means of the method of invisible teaching, which allows the use of flexible technologies that cater to the classroom learning environments, developing skills, aptitudes, inter contextual attitudes, increasing the status of learning and adaptation, applying the theoretical knowledge to support the work of the student in the professional field, transcending in the simplified accounting. An instrument consisting of 20 items on a Likert scale was designed to be applied to 91 Accounting students. The results show that the interactive software complies with quality variables, so implementation is suggested in the teaching-learning process, contributing to the development of vocational skills in professional training.

***Index Terms*— Interactive software, Invisible learning, quality, simplified Accounting, teaching resource.**

I. INTRODUCTION

With the increasing need to be competitive in a global market that impacts the educational environment, the introduction of information technologies and invisible learning in the educational practice have as main purpose to stimulate the development of new skills that are not yet recognized by assessment tools; they also seek to make the generation of knowledge attractive and meaningful. The subjects Accounting of Contributions of Natural Persons, and Accounting Simulation of a bachelor's degree program in accounting of a public institution of higher Education in the State of Mexico, are assigned in the fourth and ninth semester to apply and assess the tax provisions of income tax, value added tax, and its relationship with Social Security and INFONAVIT of legal persons; Integrate the knowledge acquired in courses taken in all areas, in practical cases, which will contain different situations of transaction logs in individuals as well as in legal entities. The skills and competencies that are seeking to obtain are analyzing and monitoring financial information; guiding and proposing strategies for financial, accounting and tax solution; collect, analyzing and monitoring fiscal information, obtaining, analyzing and controlling legal and tax information; by means of using the interactive software as a tool for simplified accounting as a basis for tax payment for Individuals with business activity as a teaching resource in a classroom environment.

The present study shows the appropriation of technologies inside and outside the classroom, so that each student adapts it creatively and autonomously according to their interests; the incorporation of ICTs in education means that the student achieves knowledge management, learns from the information generated internally, adapting it to their reality through the creative use of interactive media; the interactive software as a tool for simplified accounting as a basis for federal Tax Payment for Individuals with business activity aims to promote and manage knowledge, empirical research, and independent learning, where it is the student himself who decides what to experience with, and what he wants to know. A Bachelor's degree in accounting includes the current challenges on the theoretical - practical approach of information technology, contemplating strategies that can capitalize on cross appropriation processes and then into knowledge management, using any technology promoting propensity to change, which means, not to simply teaching how to use tools, but thinking how these tools can be used in other contexts or be used in other technologies. The ISO 9126 standard defines a mixed quality model based on McCall & Boehm (1976); which approaches assessment in two sections: external and internal, where internal is the quality in use.

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II. THEORETICAL FRAMEWORK

A. Conceptual Framework

The theoretical context with which this study deals, start with quality, which will allow us to achieve the key outcomes of the software. Pressman argues that software quality is the correspondence between the functional and performance requirements established explicitly, with the explicitly documented standards and with the implicit characteristics that are expected from all software developed professional [1]. However, Humphrey notes that the software quality should be built from the beginning, it is not something that can be added later [2]; therefore, the software must be assessed objectively, in this sense, models incorporating factors that determine the quality began to be defined since 1977 with the MacCall model, in 1978 with the Boehm model, in 1985 with the Arthur model, in 1987 with the FURPS model, in 1988 the Gilb model, 1990 Schulmeyer, in 1991 ISO 9126, Dromey in 1995, Pebbles model in 1996, Ortega in 2000, in 2001 with the model ISO 9126:1 and in 2005 with ISO 25001; each and every one of them with different proposals that refer to the same concepts, but all through hierarchical structures. ISO 9126 (Software Product Evaluation: Quality Characteristics and Guidelines for Their Use). It is an international standard for evaluating Software, supervised by the project SQuaRE. ISO 25000:2005, follows the same concepts [3]. It will be the main reference for our research. This model states that the quality changes during software development, during requirements specification and analysis; quality is specified by the user requirements, from an outside perspective [4]. In the design and implementation phase, the external quality is the external design, proving the point of view of developers on internal quality and complemented with implicit requirements that the software must meet; the final quality must be appropriate for the users as well as for the contexts of use. The standard is divided into internal metrics, which do not depend on the implementation of the software, so they are static measures; external metrics applicable to implemented software; quality in use metrics, available when the final product is used in real conditions. Ideally, the internal quality determines the external quality and, in turn, the quality in use. Internal and external features are based on a classification of six factors: functionality, reliability, usability, efficiency, maintainability and portability, defined as associated criteria to each of them as shown in Figure 1.

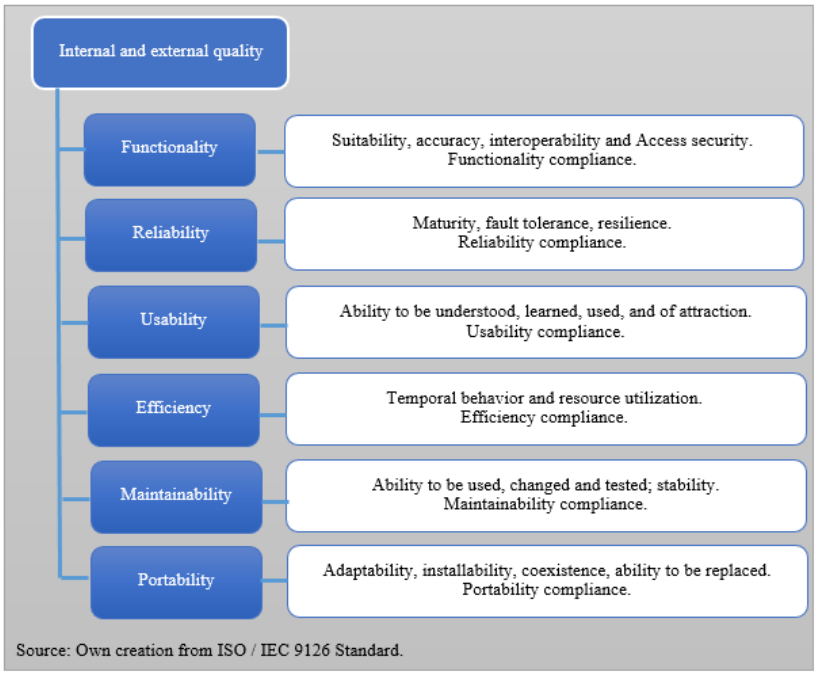

Fig 1. Internal and external quality of the ISO 9126 quality model

There are four characteristics of use quality: efficiency, ability to help the user to fulfill their goals with accuracy and completeness in a particular context of use; productivity, the ability to help the user to utilize an appropriate amount of resources to obtain results; security, the ability to achieve acceptable risk levels of people, of the working environment and of the activity, in a particular context of use; and satisfaction, the ability to satisfy a user in a given context of use [5].

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The ISO / IEC 14598 standard provides a guiding principle for evaluating the quality of all types of software, providing metrics and requirements for measurement across 6 stages: ISO / IEC 14598-1 Overview, ISO / IEC 14598-2 Planning and Management, ISO / IEC 14598-3 Developers Process, ISO / IEC 14598-4 comparators process, ISO / IEC 14598-5 Evaluators Process and ISO / IEC 14598-6 Evaluation module; from which the first ISO / IEC 14598-1 stage will be returned to since provides a summary of the other five stages, explains the relationship between software product evaluation and quality model; establishing evaluation requirements, specifying assessment, evaluation planning and its implementation.

B. Frame of Reference

Higher education seeks to respond to the needs of the XXI century, in recent decades it has been sought to make education more efficient and innovative in educational performance; Cabrero and Martin emphasize that students attitude conditions their perception of the dynamics employed by teachers [6], hence the importance of the teacher to seek to educate their students using strategies that promote active learning and that support argumentative judgments, as well as the research on our own practice in a methodic way [7].

With the advent of technology and the media, in recent decades humans have been changing, has adopted dynamics, behaviors and different relationships [8]; There are different models of educational methodologies, as in the case of combined, blended or mixed learning a variety that in English is called “blended learning” which responds to a learning mode that combines classroom teaching with distance teaching carried out through new technologies. M-learning is mobile e-learning mode, which involves the use of mobile devices such as mobile phones, PDAs, i-pods and all handheld device that has some form of wireless connectivity [9]. There is also personal learning environment (PLE) or Personal Learning environment, which is a heterogeneous combination of devices, applications, services and personal networks that are used to autonomously acquire new skills for solving problems, which has led to the emergence of Edupunk (Autonomous learning in open source society and social innovation); approach in which the learner becomes the protagonist and the center of the process [10]; Madsen (2008) defines it as an activity of student-centered learning, designed by the teacher, under a progressive approach, considering the interests of the learner, relevant in the digital society [11]. Outliers School, inspired by Creative Commons or Open Educational Resources (OER, Open Educational Resources) was created with the intention of changing ways of learning, chatting in networks, prototyping ideas in different areas of education, considering that the crisis in education is a problem of design; that the disruption of education is organizational, not technological; that it is necessary to migrate from superficial to focused and interdisciplinary knowledge. The processes that facilitate problem solving are a more attractive niche to be analyzed and prototyped more intensely to a learning kiosk where the student takes only what they need. Interactive software is an enhancer of the use of invisible learning within the educational environment, making the teaching-learning process more attractive. ICTs are now a resource available to teacher’s at all educational levels, and the main drivers of inclusion must be the teachers themselves [12]. Technology is a tool that facilitates the development of different teaching processes; it soon became one of the main enhancers that contributed to educational innovation such as the new educational modalities: e-learning and m-learning. It would not be strange to see how far the capabilities and scope in education can be reached; At the Zemos983 Festival 2009 Seville, the concept of expanded education was introduced under the slogan "Education can happen anytime, anywhere", affirming that people are inventing their own ways of learning. According to the Global report 2005, education or learning is no longer limited to a determined and definitive space-time, the phenomenon of learning is intended to be generalized in our societies at all levels, and it is also called to structure the organization of time, work life and institutions [13].

Using tools such as interactive software in education involves designing the contents from a different and broader thinking, where learning can be connected to the real life environment of a student in a more contextual mode [14]. An increased educational use of technology resources that teachers have at their disposal means not only learning to use the equipment, but also learning to incorporate technology into their daily work in the classroom and do it in a way that is fostered through practical and innovative actions adapted to the new reality, that respond to information processing, collaboration and attention to diversity. The convergence of technology, the student and their learning process, together with the teacher and their teaching process, enables to identify the use of technological resources in educational processes, this means that before thinking in terms of which medium will be used, it should be asked for whom, how it will be used and what is to be reached [15]. Technological resources used in educational practice promote students synchronous and asynchronous collaborative work; the user-friendly

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environment facilitates a stronger attraction for content; portability increases the time spent on academic work, strengthening not only teacher and student communication, but also the link technology-education-professional education.

Proper application of digital resources is also related to the pedagogical aspect. Therefore, the incorporation of methodologies consistent with the implementation of ICT suggests moving forward in the right direction when it has mechanisms to cause significant changes, at least in the medium term [12]. ICTs can be used to help teachers check, regulate and monitor the progress and difficulties of students, as well as to support the feedback process and guide their learning [16]; many teachers are afraid to incorporate tics in the classroom, assuming that this would make them lose any strategic advantage, as they would be introduced in a field where students know more than the teachers. The development of this technological tool is supported on one hand, by the existing legal basis, in addition to the virtues that technology itself brings; on the other hand, it has the fundamental content and objectives of the course, linked to skills and competences, impacting their graduate profile, seeking to guide students in their learning process through practical reflection to contribute to the development of skills and attitudes from experience, as Cardona states, since practice situations need reflection to find appropriate solutions to today's emerging problems [17]. Chen, Yu and Chang argue that curriculum integration of digital tools constitutes a new learning paradigm and that these resources are essential for innovation [18]; both teacher and student feel reinforced by the presence and analysis of the use of ICTs aimed at solving practical problems: introduction of resources and methodological innovations, search for effective learning and support strategies, as well as communication between both parties [19]. Therefore, reflection on practice is essential to ensure that teachers can adapt and anticipate changes that the new knowledge society requires [20]. When we talk about education, technology use cannot focus on making more technologal the already established forms of education [21], it is necessary to build knowledge that does not need not be limited by the orthodox models of education. Technologies can support these new forms of knowledge construction; More than discussing possible uses of technology in education, it is necessary to evidence ownership of a number of practices that are both educational and involve solutions to common life problems as informal learning processes with extraordinary products, such as that of TEDxTALKS in expanded education [22]. It is necessary that the school be aware that learning is closer to the person and their own construction, than of the institution of education and not be taken for granted in understanding what happens in the not only real, but also digital world constantly; As for Reig, he presents the paradigms of cyber culture or the paradigm of education from the dynamics and practices that lead and are carried out from cyber cultures and cyber societies, characterized by the relationships that develop virtuality of the digital world with the real world [23]; these are not limited to the present in virtuality as something detached from reality but rather as the integration of various elements that interact to allow an education much more homogeneous, accessible, open and much more powerful for its ability to reach others, forming an ecosystem that generates learning processes [24]. According to Scolari, the key word is versatility Technology (mastering more both software and hardware tools), media versatility (to produce content in different languages) and thematic versatility (to address different sections and themes) [25]. With innovation in learning through ICTs, case in point, interactive software simulation, practice can now be carried out to look more like the actual practice where the accountant must be included and mediate a clearly collective process; the knowledge transfer tool that allows a simulated anticipate, accurate and multiple version provides them with invisible learning alternatives, i.e learning continuously and informally through everyday interactions.

Invisible Learning is inclusive, it does not place itself before to any theoretical approach, but covers neglected areas of knowledge, it does not propose a theory but a metatheory capable of integrating different ideas and perspectives; it is a search to remix ways to learn that include creativity, innovation, collaborative and distributed work as well as new forms of translation of knowledge; under the logic of supporting traditional education through new devices and new teaching methodologies. The idea is not to replace what already exists but add it [26]; especially since we know that the human being is an intercontextual being, able to learn from the resources around them, making life a constant state of learning and adaptation that transcends any curriculum or syllabus [27].

According to Cobo and Moravec, there are five areas in invisible learning: first, no apparent competencies are invisible in formal settings as digital technologies encourage the development of new skills that are not recognized by the current assessment tools [28]; Second, ICTs become invisible as such and stimulate the human capacity to create, connect and replicate new knowledge continuously, without marrying any particular technology, and

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without incurring in giving up adaptation and continuous updating; Third, the skills acquired in informal settings are invisible because the practical experience of applying knowledge and skills occur in different learning microenvironments, fertile for acquiring, combining and transferring knowledge, from tacit to explicit, through habits of daily interaction, such as observation, word of mouth, trial and error, peer learning, etc.; fourth, digital skills are invisible as they require to be stimulated by practical experience, in addition to knowing the instrumental functionality of a software or device, it is necessary to apply complex thinking to solve problems in different ways, make technologies invisible and be able to generate, connect and disseminate the created knowledge; many of these skills come from very daily dynamics such as observation or learning by doing, searching and / or solving problems from non-institutionalized contexts [29]. Fifth, there are certain employed practices that could become invisible with the efficient use of memory and information retention reinforced by all kinds of devices.

While it is true that technology itself does not ensure innovations or transformations in the educational work, teaching procedures with which ICTs operate inside and outside the classroom are required. Thus it is necessary to make clear that the model of teaching activities should give general guidelines for the teacher to be able to stimulate the students' mindsets, values and attitudes through teaching strategies according to the medium involved and the nature of the modality in which their practices are developed (classroom, blended learning, virtual or remote).

III. METHODOLOGY

A. Procedures

The first stage was to select the contents, instructions, exercises, case studies, and the system design of Simplified Accounting as the basis of Tax Payment of income tax and VAT for Individuals with business activity; to build the interface which would bring together a menu with five basic elements: first, the theory of accounting ranging from its background, legal framework, importance, types and objectives; The second section focuses on simplified accounting encompassing their goals, requirements and the legal obligation of the taxpayer; The third module comprises the simplified accounting system that contains the chart of accounts, income, expenses, VAT and income tax calculation, a concentrate of income and expenses, as well as listings of customers and suppliers; The fourth section specifies the elements that define the system; and the fifth module contains instructions for its use. Afterwards, 91 students of the Bachelor's degree in Accounting tested the system. Finally, the software quality was evaluated in the educational practice in line with the practical usefulness of the tool, depending on the characteristics of both the nature of the subject, as well as how current the contents are.

Methodology aspects were considered according to Arranz on how information and interaction of educational software is presented: attractive design: elements included in the program to support learning concepts or strategies, such as animations, illustrations, etc. [30]; quality of content: to facilitate the understanding of information and consequently, the student motivation; depth of topics: clarity and simplicity in the presentation of concepts. Designing of activities, under the premise of increasing variety and complexity: pursuing different learning objectives as a synthesis of concepts, interpretation of information, association of elements, etc. Interactivity with the program: to facilitate attention and retention of information.

The objective is not only to establish a link of stimulus - response between the screen and the student, but also to enhance learning by discovery by means of exercises that allow the application of the concepts learned and therefore facilitate students understanding and that serve to generalize what they learned in other situations; as well as simplicity of use of the tool that facilitates the application of resources with clear instructions, font size, elements layout on the screen, ability to access the different elements and sections, navigation routes and the tool use manual. We considered the issues raised by Perez and Aguaded, that the design of the training program also requires evaluation and diagnosis, student participation in the building of materials, under a collaborative point of view and a critical perspective; a pilot test was administered to a group of students of the Bachelors' degree in question, to raise questions or suggestions regarding the software [31]. While Peñalosa argues that Blended Learning has been analyzed in recent years by specialists of Education [32], Henriquez, states that any course under the hybrid mode must come from a pedagogical design, which is circumscribed in a didactic model [33], it must also require a technological design expert in using the software, and finally an institutional design, centered in the characteristics of the organization.

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Assessment was performed according to the ISO-14598 standard, which provides the framework for assessing the quality of a software product, indicating the requirements for the assessment process through the steps: establishing assessment requirements, specifying the assessment, planning and implementing the assessment; ISO / IEC 14598-1 Overview provides a summary of the other five stages and explains the relationship between the evaluation of the software product and the quality model. The ISO / IEC 9126 standard allows the evaluation of software quality by the specific profile attributes: functionality, reliability, usability, efficiency, maintainability and portability; and sub characteristics relevant to the software that allow further evaluation of software quality: the metrics used in the measuring correspond to the external ones because they are those that apply to the software when it is running and their acceptance range. In this regard, the quality measurement instrument was made up of 20 items considering the six variables aforementioned, with a confidence level of $\propto = 0.92$, on a Lickert scale, considering the values of 1 for excellent, 2 for good, 3 for fair, 4 for poor and 5 for bad. Having defined the construct of evaluation, the instrument was applied to 91 students from the four active semesters of the Bachelor's Degree in Accounting who meet the necessary criteria for its use and application of the interactive software. The startup procedure was an explanation of the scope of the teaching tool, technical details for its implementation were specified, and it was pointed out that the development of the technological model was developed based on the Mexican tax laws. Later the CD for using the software was provided during the passing of the current course.

The second phase consisted of four sessions for groups of each semester, each session lasting approximately 45 minutes where the software was introduced, its operation was explained by conducting real case studies with the purpose of the determination and calculation of federal taxes (income tax and VAT) in which the taxpayer is required to declare to the appropriate authority, by recording the income and expenses for the activities performed, being inputs, outputs or modifications; all participants know the concepts and buttons contained in the system for the calculation of income tax and VAT.

The third phase consisted of the evaluation process by the instrument. For processing the data, the statistical package "Statical Package for the Social Sciences" (SPSS, version 21) was used, the descriptive analysis was performed in order to have an overview of the results obtained, an analysis performed by the application of measures of central tendency in the variables gender, age and semester, as well as the behavior of each of the criteria that measure quality; an inferential analysis, in order to argue on the necessary claims for the study. A Pearson correlation was performed in order to find the degree of correlation between the quality variables, the Student's t-test to measure levels of quality, as well as the and linear regression to predict the variables that most strongly influence the quality.

B. Results

The sample consisted of 91 subjects of which 33% (n = 30) were male and 67% (n = 61) women; who worked with the interactive software as a tool for simplified accounting (SICS), see figure 2.

Fig 2. Distribution of the sample by gender

Gender	Frequency	Percent
Female	61	67
Male	30	31
Total	91	100.0

The sample consisted of students of four different semesters from which 28.6% (n = 26) correspond to the second semester, 31.9% (n = 29) to the fourth semester, 29.7% (n = 27) correspond to the sixth semester and 9.9 % (n = 9) to the eighth semester, as seen in Figure 3.

Fig 3. Distribution of the sample by semester

Semester	Frequency	Percent
Second	26	28.6
Fourth	29	31.9
Sixth	27	29.7
Eighth	9	9.9

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Semester	Frequency	Percent
Second	26	28.6
Total	91	100.0

Regarding the age of the participants, 34.1% (n = 31) correspond to ages between 18 and 19 years old, 47.3% (n = 43) correspond to ages between 20 and 21 years old; and 18.7% (n = 17) correspond to ages between 22 to 32, as shown in Figure 4.

Fig 4. Distribution of the sample by age

Age range	Frequency	Percent
18 to 19 years	31	34.1
20 to 21 years	43	47.3
22 to 32 years	17	18.7
Total	91	100.0

Considering the descriptive assessment criteria: Average (X) and Standard Deviation (SD) of the factors of quality, we have that the level of overall quality is (X = 1.61), and (SD = 0.54); in each of its subscales: functionality, reliability, usability, efficiency, maintainability and portability, tending to be excellent as shown in Figure 5.

Fig 5. Quality factors

	Factors						Total
	Functionality	Reliability	Usability	Efficiency	Maintainability	Portability	
$\bar{X}$	1.68	1.57	1.65	1.55	1.67	1.56	1.61
DE	0.55	0.64	0.64	0.59	0.65	0.66	0.54

The matrix shows that there is a total of twenty one correlations between the determinants of the factors of quality, from which the six factors have a level of correlation with a high degree of significance in regards to quality. The data shows that the level of significance between the variables of portability is related positively strongly with maintainability, usability with functionality and efficiency; reliability is also positively associated with functionality and maintainability; efficiency with functionality, and maintainability with usability; finally, there is a moderate relationship between maintainability and efficiency, as shown in Figure 6.

Fig 6. Pearson correlations Chart

	Quality variables						
	Functionality	Reliability	Usability	Efficiency	Maintainability	Portability	Quality
Functionality	1.0						
Reliability	.751**	1.0					
Usability	.766**	.760**	1.0				
Efficiency	.737**	.637**	.761**	1.0			
Maintainability	.680**	.745**	.734**	.721**	1.0		
Maintainability	.645**	.705**	.710**	.704**	.767**	1.0	
Quality	.864**	.877**	.900**	.863**	.887**	.866**	1.0

*$p < 0.05$; **$p < 0.01$*

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The variable that predicts quality on a higher degree according to the coefficients of determination (r2), is usability (r2 = .810), followed by maintainability (r2 = .787), reliability (r2 = .768), portability (r2 = 0.751), functionality (r2 = .746) and efficiency (r2 = 0.745), as shown in Figure 7.

Fig 7. Coefficient of determination r^2

	Factors					
	Functionality	Reliability	Usability	Efficiency	Maintainability	Portability
r^2	.746	.768	.810	.745	.787	.751

Regarding the perception of the tool quality as a teaching resource analyzed by semesters, we encounter statistically significant differences (0.05) between the students in second, fourth and sixth semesters, and those of the eighth semester, this may be due to the degree of usability of the subject within their syllabus, in second fourth and sixth semesters have a very high perception in regards to quality, describing it as almost excellent ($\overline{X}$ = 1.55), while the eighth semester label it as good ($\overline{X}$ = 2.24) perhaps obeying the large number financial accounting techniques that merit their profession, see figure 8.

Fig 8. Testing Post hoc multiple comparisons between semesters

(I) Grade	(J) Grade	Mean Difference (I-J)	significance
2	4	,14294	,785
	6	,06068	,980
	8	-,62996*	,022
4	2	-,14294	,785
	6	-,08227	,948
	8	-,77290*	,002
6	2	-,06068	,980
	4	,08227	,948
	8	-,69064*	,009
8	2	,62996*	,022
	4	,77290*	,002
	6	,69064*	,009

*. The mean difference is significant at the 0.05 level.

IV. DISCUSSION

The sample consisted of students of the Bachelor's degree in Accounting; 26 of the second semester, 29 of the fourth, 27 of the sixth, and 9 of the eighth semester; 33% were male and 67% female, ages ranged from 18 to 32 years old, the range of 20 to 21 years old was predominant. 100% of the sample know about the implementation and evaluation of the legal provisions of the income tax, value added tax and its relation to the Social Security and INFONAVIT of individuals, as well as obtaining, analyzing and monitoring of financial information. The measuring instrument has a good level of reliability, obtaining a Cronbach's alpha coefficient of α= 0.92.

The results of data processing by using the statistical package revealed that the level of quality obtained is X = 1.61, indicating that the level of perception of students toward the teaching tool is almost excellent, with a high compliance in the software's ability to provide the services necessary to meet the functional requirements, with X = 1.68 and standard deviation of 0.55 in functionality, which refers adequacy, defined as the ability to provide a set of functions for certain tasks and user goals; accuracy to provide the correct results with the necessary degree of

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accuracy; Interoperability when interacting with one or more specified systems; access security and functional compliance to adhere to standards, conventions or regulations in laws and similar prescriptions related to functionality.

Regarding the Pearson correlation there is a total of twenty one correlations among the factors that determine the quality, showing that the six factors meet the requirements contained in international standards in the design and development of software, considered as high technology in the development of practices, and improvements in business and government and academic management, promoting continuous improvements in institutional competencies in order to provide society the best professionals with cutting edge technology tools looking to the provision of efficient and effective services.

All independent variables showed a high level of quality determination allowing interactive software as a tool for simplified accounting (SICS) to be considered for implementation in the future as a teaching resource in a typical learning environment with invisible learning.

From statistical analysis of the perception of participants per group, in the performance of the application of resources as a teaching tool in the field, it is detected that for the initial and middle semesters, it is almost excellent, unlike the advanced group of eighth semester, which has a good perception in respect to its relevance during the semester since it covers fewer topics with respect to the whole comprising of its level.

V. CONCLUSIONS

The ISO-14598 Standard provides a framework for assessing the quality of all types of software, stating the requirements to be measured and analyzed in this process. It is suggested to implement software under the standards that ensure its proper assessment and mitigate software errors that may appear when it is running, such as the ISO / IEC 9126-1 standard.

The teaching resources used, have the desired quality levels, ensuring a professional performance incorporating the normative basis and the theoretical basis, as well as the practical basis of the topics of the learning units in question.

The subjects accepted the use of the interactive software with application of its own profession, modern material, current, legal, and financial situations, increasing its identity in the accounting profession, providing them with current technological tools that facilitate their performance. While today's society is acquiring more skills regarding the use of technology and their environments, it is these skills from which a large number of personal, school, and social activities depend on, increasingly spreading to other environments and factors.

Participants indicate that diversification of technological resources is key to lead to changes and improvements in their education process, think that it is a good way to increase their interest, develop responsibility, avoiding dependence or misuse of digital media; that the use of interactive software promotes the development of capacities, abilities and skills; attitudes and aptitudes for individual work in the field of learning to learn competence; interest and inquiring to know more can lead to learning easily and in an updated way as well for sharing experiences; vision towards the teacher is that they have a greater commitment, since it is a proof of their continuing education, by causing genuine innovations.

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