Estrategias didácticas bajo el enfoque de competencias: aplicación del uso de herramientas de forma interactiva

Teaching strategies under the competence approach: application of using tools interactively

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Resumen

El presente trabajo propone la aplicación de estrategias didácticas bajo el enfoque de competencias en la práctica docente de las Instituciones de Educación Superior. Ello permitiría implementar de manera interactiva la competencia básica o clave del uso de las herramientas dentro del programa de cualquier asignatura diseñada bajo el modelo de formación en competencias.

Mediante el empleo de dichas estrategias se busca que los alumnos dominen de forma interactiva la competencia básica, la cual consta de un amplio rango de habilidades, destrezas y actitudes que permiten a los egresados interactuar eficazmente con el ambiente donde se desenvuelven, incrementando así sus posibilidades de insertarse en el mercado laboral.

Palabras clave: estrategias didácticas, herramientas de forma interactiva, inserción laboral.

Abstract

The present work focuses on the aplication of didactic strategies pertaining to (competencias) in the cotidian teaching practices in higher education institution's classrooms. This practice allows (enforces) the implementation of (competencia básica) o (clave), the interactive use of tools within any program designed with the model of (formación de competencias).

The aplication of the analyzed strategies allows students to master the (competencia clave) use of tools in an interactive manner. This (competencia) is made up of skills abilities and atitudes that allow for the effective interaction in the setting of student's developement. This will significantly increase student's jobs opportunities.

Key words: teaching strategies, interactive tools, employment opportunities.

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Introduction

Currently the vast majority of countries in the world facing serious unemployment problems. Mexico is experiencing a very critical situation; enough to see that a huge number of young people are unemployed or low-wage after completing their university studies.

The national newspapers, news and, more precisely, the analysis of the figures thrown the National Survey of Occupation and Employment (ENOE), state that "during the month of December 2015, 95.4% of the economically Activa (PEA) was busy "(INEGI, 2016). Also, the table Percentage distribution of Unoccupied (INEGI) Population reported that 44.10% of the country's inhabitants who completed the high school level and / or higher are unemployed.

In 2013, former Secretary General of the Association of Universities and Institutions of Higher Education (ANUIES), Rafael López Castañares, said that "40% of college was unemployed or had a hard time finding a job" (ANUIES, 2013).

Dr. Carlos Muñoz Izquierdo said in his article "Determinants of employability of university students and alternatives to promote it" to the magazine Redalyc that some of the causes of unemployment among young university graduates responds to the result of the combination of several factors:

> Asynchrony that often exists between the speed with which they are updated plans and curricula, and the pace with which technology changes are adopted in the production units, impact on the academic requirements of occupations. It is also generally poor quality of training acquired by the above persons (university graduates), which prevents them to easily adapt to the effects of such innovations (Muñoz, 2006).

On the other hand, the company Manpower (2013), recent research has found that four out of ten jobs for young graduates from various universities in the country have not been busy, because candidates lack the work experience or specific skills (specific job) skills needed to enable them to distinguish itself from its competitors.

Based on the above it can be deduced that the obstacles faced by these professionals are not limited to the lack of employment (with their respective economic variables which is not discussed in this paper), but also the inaccessibility of the places available due their lack of proficiency in a second language, specific skills and basic skills.

These difficulties have become common for many new professionals, who some years ago had no need to master general work skills or knowledge to achieve edge entering the labor market. However, at present it is known that this series of competencies, among which are the professionals in each area, labor and basic (called also transverse or key), are essential for a proper work in the area of training, contribution fair economic compensation and also provides rewards of personal achievement.

In Mexico, as probably in many other countries, there are job opportunities for professionals, but these are insufficient. It is known that these places of work are obtained those professionals who have "added value", professionals who in addition to their professional training dominate a number of specific skills in their area of knowledge, in addition to a number of skills, and attitudes "extras" which are closely related to labor skills demanded by employers, among which are the core competencies or key.

The aim of this proposal is that teachers of the Higher Level of the National Polytechnic Institute, or any other similar institution, use and apply teaching strategies under the focus of the competency model for their students master the basic skills to use tools interactively. The domain of embedded set of skills in this key competence, provide them with the necessary tools so they can interact properly in their social and working environment.

Theoretical and contextual framework

Learning skills

The concept of competence has been transformed and now also encompasses the cognitive area, where the idea of introducing the development of educational skills in educational programs is kept pretending that linking labor demands with the knowledge, skills, attitudes and values learned by students.

Over time this idea has generated a series of definitions of learning skills. Tobon defines competition as "the capability or set of capabilities that are obtained by the combination and interaction of knowledge, skills, attitudes, values, motivations and skills, the willingness to learn and know '(Tobon, 2006).

Echevarria provides a clearer idea:

> ompetition divides the unavoidable to face certain circumstances and be able to face them know. The first relates to the personal qualities, where the use of these depends on the structural environment in which to develop and institutional spaces of training. Under this

> scheme, professional competence possesses one that orients the knowledge, skills and precise attitudes to perform their job function, since it is able to solve problems with autonomy and creativity and is able to collaborate with their working environment and organization from work (Echevarría, 2001).

The concepts raised allow a concept useful for the present work skills is conceived: the competences are defined as a set of attitudes, skills and knowledge that are manifested through transcendental practices to solve social problems and forge needs change and transformation, where these practices involve learning to know, know-how, how to live and how to be; the foregoing subject to contingencies that may be transferred to another creatively labor or productive context. Therefore, it is considered that an individual is competent when he is able to solve problems or situations when making the combination of necessary activities in a context or situation.

Basic skills or key transversal

OECD (Organisation for Economic Co-operation and Development) has worked with a broad group of scholars and experts, with the participation of various educational and research institutions, through the DeSeCo project (Definition and Selection of Competencies), to identify a set of some of the basic skills or key.

SEDECO (DeSeCo, 2006) provides that:

> Key competences represent a transferable, multifunctional package of knowledge, skills and attitudes that all individuals need for personal fulfillment and development, inclusion and employment. These should have been developed for the end of compulsory education or training, and should act as the basis for further learning throughout life.

At present, the development of these skills is very important, because in a globalized world, exposed to inherent constant changes to modernization, increasingly diverse and interconnected, it is essential that individuals forming societies dominate technologies versatile, reason the vast

amounts of information generated and able to face collective challenges. The DeSeCo Project (DeSeCo, 2006) classifies key competencies into three broad categories:

1. Using tools interactively.
2. Interacting in heterogeneous groups.
3. Acting autonomously.

These categories are closely interrelated, and jointly form the basis for identifying key or core competencies. In this paper we analyze only the next competition:

Using tools interactively

In the globalized world and its information society will demand that people dominate sociocultural tools so they can interact with: language, information, knowledge and computers. It is considered that an individual is competent in the use and application of tools interactively when you use a wide range of tools to effectively interact with the environment.

Such jurisdiction shall meet the needs of: keeping up with the technology, adapt tools to their own purposes and be able to lead an active dialogue with the world (Sedeco, 2006). In order to meet the needs posed the following competencies are established: a) interactive use of language, symbols and texts, b) interactive use of knowledge and information and c) use of interactive technology.

a) Interactive use of language, symbols and texts. This key competence is related to the effective use of oral and written language skills, computer skills and other mathematical skills in multiple situations. It is also a key to perform well in society, workplace, and to engage in an effective dialogue with other tool. The term "communication skills" associated with this basic competence.

b) Interactive use of knowledge and information. The increasingly important role the services sector and information and the use of knowledge in modern societies, seen as essential that people proficient in the use of information and knowledge interactively. This capacity is a

core competency that demand a critical reflection on the nature of the information (its technical infrastructure and its context and social, cultural and ideological impacts). This competition is also basic to understanding options, forming opinions, make decisions and carry out informed and responsible actions.

c) Using interactive technology. Technological innovation modern needs attributed to individuals inside and outside the workplace, and technological progress simultaneously offers people new opportunities to meet the demands more effectively, as well as new and different ways of relating. Interactive use of technology calls for new ways to meet can be incorporated into daily life. The information technology and communication can make people work together (reducing the importance of location), access to information (by providing numerous sources of information) and interact with others (facilitating relationships and networks of people all the world). To exploit this potential, individuals must not only handle basic technical skills like using the Internet, send emails and things like that, but more.

As with other tools, technology can be used interactively if users understand their nature and reflect on its potential. More importantly, individuals must relate their own circumstances and goals that underlie the possibilities of technological tools. A first step would be to incorporate the technology into their common practices, producing some familiarity with technology and expanding its use.

Didactic proposal

The didactic proposal for the implementation of the dominance of the competition use tools interactively, in the program of any subject of the degrees of higher level designed under the competency model, is based on the approach of constructivist theory (Calero , 2009), which allows guide the process of learning from an experiential perspective that invites the teacher to be a mediator, to send less verbal messages and promote greater participation by the student. This theory recognizes that everyone learns in different ways, so that appropriate methodological strategies that encourage potential and resources that support the development of students who appreciate and trust their own abilities to solve problems, communicate and learning to learn are required.

For this reason, the design of programs under the competence approach should theoretically contain the implementation of basic skills or key, as these, as already mentioned, favor scenarios where students are in a position to dominate a multifunctional package and transferable knowledge, skills and attitudes necessary for personal fulfillment and development, inclusion and employment.

In order to remedy part of the problem that has arisen in this paper, the following didactic proposal whose main objective is that any teacher of higher level, be able to implement these strategies, which may be included in the program proposed any subject.

The procedure is very simple, it is based on the implementation of teaching strategies under the competence approach, same that allow domain by students of the key to using tools interactively (Table I) basic competence or. Such teaching strategies promote the development of basic skills of using tools interactively.

Table I

Teaching strategies that promote the development of basic skills of using tools interactively

Competencia. Uso interactivo del lenguaje, los símbolos y los textos			
Estrategia didáctica	**En qué consiste**	**Aplicación**	**Qué se espera alcanzar/beneficios**
ENSAYO	Escrito serio y fundamentado que sintetiza un tema de gran significado. Posee un carácter preliminar, introductorio, de carácter propedéutico que se expresa en un estilo denso y que no acostumbra una aplicación detallada.	Se recomienda utilizarla cuando se necesita que el alumno revise una unidad de tema del programa. El alumno se centra en el objeto de estudio (problema, área problemática, concepto, proceso, etcétera) y presenta una unidad argumentativa, es decir, el ensayo presenta un conjunto de pruebas a favor de la tesis o posición que va a defender.	La aproximación a diferentes áreas del conocimiento, para abordar una problemática as través del análisis y la creatividad desde diversos aspectos. **Beneficios:** ➢ Su agilidad y sencillez productiva, su capacidad de comunicar de manera directa. ➢ Su corta extensión permite publicarlos con mayor facilidad.
RESÚMENES	Elaboración de un nuevo texto a partir de otro texto, donde se exponen de forma abreviada las ideas más importantes o relevantes. Se elabora en forma de prosa escrita, pero también puede diseñarse de forma esquemática.	Es primordial facilitar los pasos a seguir para su elaboración y describir los criterios bajo los cuales se elaborará el resumen. Su redacción incluye dos procesos, el primero es la lectura y comprensión del escrito fuente, seguido de la elaboración del segundo texto (resumen).	Promover el desarrollo de la memoria y facilitar el recuerdo de la información más relevante del contenido a aprender. Llevar a cabo una organización global más adecuada de la información nueva (mejorar las conexiones internas). **Beneficios:** ➢ Ubicar una estructura u organización global de la información. ➢ Subrayar la información importante. ➢ Introducirse (familiarizarse) al nuevo material y aprendizaje. ➢ Organizar, integrar y consolidar la información por aprender (presentada o discutida).
Competencia. Uso interactivo del conocimiento y la información			

INVESTIGACIÓN DE TÓPICOS Y PROBLEMAS ESPECÍFICOS	Investigar significa formular problemas significativos y negociados, confrontar las diferentes visiones que conviven en la vida laboral, planificar y negociar los diferentes pasos del proceso investigativo, confrontar las hipótesis e ideas previas del alumnado con el conocimiento deseable, elaborar y revisar las conclusiones, recapitular y revisar las conclusiones e informaciones obtenidas y reflexionar y evaluar colectivamente el propio proceso de investigación.	Es recomendable utilizar esta estrategia cuando es factible realizar un agrupamiento de los problemas en torno a la competencia del curso, si se dispone de tiempo para llevar al alumno a trabajar en equipo en la búsqueda de posibles soluciones o respuestas a los problemas o interrogantes planteados con "relacionarse bien con otros y cooperar y trabajar en equipo".	Se promueven los procesos investigativos, y se incrementa el grado de adquisición de conocimiento. **Beneficios:** Auxilia en la mejora de las relaciones interpersonales y de cooperación cuando se trabaja en equipo.
Competencia. Uso interactivo de la tecnología			
MÉTODO DE PROYECTOS	La pedagogía activa, inherente al método de proyectos, va de lo concreto a lo abstracto. Es decir, se parte de lo que se sabe, de lo que es familiar, para instruir y educar.	Al seleccionar la estrategia, se debe tener presente que este método se aboca a los conceptos fundamentales y principios de la disciplina del conocimiento, y no a temas seleccionados con base en el interés del estudiante o en la facilidad con que se traducirían a actividades o resultados.	Integrar los principios fundamentales de un proyecto durante la construcción de un prototipo cualquiera. Asimilación de conceptos y desarrollo de capacidades, actitudes y aptitudes en la toma de decisiones, y responder de manera activa en la solución de problemas. **Beneficios** ➢ Integrar las actividades teóricas de la profesión ➢ Ubicar al alumno en el centro de sus aprendizajes. ➢ Formar sus propias representaciones de temáticas y situaciones complejas ➢ Determinar aspectos del contenido que encajan con sus propias habilidades e intereses. ➢ Trabajar en temáticas actuales

			que son relevantes y de interés local. ➢ Bosquejar el contenido con la experiencia diaria.
FOROS DE DISCUSIÓN, CORREO ELECTRÓNICO, PRESENTACIONES MULTIMEDIA, USO Y APLICACIÓN DE HERRAMIENTAS INFORMÁTICAS	El desarrollo adecuado de estos medios en el ambiente educativo, demanda algo más que conocimientos tecnológicos. Cuando nos referimos a conceptos de interactividad y de transferencia de información, estos tienen una relación estrecha con principios de diseño, más aún si estos conceptos están orientados a una función netamente formativa.	**Correo electrónico (persona a persona)** **Lista de distribución (correo electrónico)** **Chat** **Foro,** **Videoconferencia** **Grupos de discusión** **Sitios y portales** **Web www**	A través de estas herramientas se obtiene la capacidad de comunicarse de manera interactiva (foros), y de manera asíncrona (correo), además de que permite establecer formas de trabajar en un ambiente de colaboración, a través del uso de la tecnología. El uso de las presentaciones multimedia y el uso y aplicación de las herramientas informáticas permite desarrollar capacidades innovadoras y agilizar procesos.

Source: adaptado de Rodríguez, R. (2007). Compendio de Estrategias bajo el enfoque de competencias. Sonora: Coordinación de Desarrollo Académico / Instituto Tecnológico de Sonora.

Conclusions

After applying the teaching mentioned over five years in the Learning Unit of Information Technologies and Communication of the High School of Commerce and Administration of the National Polytechnic Institute, it has observed that students are able to implement competition using tools interactively when:

- The information they get comes from various sources, mainly from the web. Students develop critical thinking skills through the establishment of judicious reflections of the analyzed information, allowing them to discriminate the context of such information, as well as its social, cultural and ideological impact, creating their own value judgments and informed actions and responsible decision making.
- Acquire a significant improvement in the interactive use of language, symbols and texts, also when used tidal effective oral language skills and written in various contexts, such as the preparation of essays, summaries, multimedia presentations and oral presentations of

their proposals and jobs, which brings a better social performance, increasing their effective participation in dialogue with others.

- They manage to incorporate technology into their daily life, ie, in the various tasks and assignments that are assigned in class, transforming the way we work together, overcoming the obstacle of distance by utilizing various Internet applications, for example, email, chat, Facebook and discussion groups, allowing establish collaborative environments that promote links with individuals around the world.

The noble flexibility allows this practice can be applied to any subject program because it does not require extensive pedagogical knowledge; their teaching strategies are simple and most higher education teachers have used them at some point.

Undoubtedly it is necessary in the near future graduates perform follow-up studies to know for sure if the young people who acquired these skills and abilities have achieved better employment conditions. Similarly it is necessary to include strategies to implement all basic skills or key, for best results in employment and personal development of graduates. Therefore it is important to constantly question: what skills students must master so they can perform well in this rapidly changing society ?, what skills must master to obtain and keep a decent job?

It is important that we, as teachers, guides and facilitators of students who are about to enter the labor market or already did, we submit to a process of training and ongoing training, to reinvent our teaching practices for our students achieve obtain and develop the knowledge and skills necessary to successfully meet the challenges of life.

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