

**The academic efficiency in the universalization of the Physical Culture
in Yateras 2003-2014**

**La eficiencia académica en la universalización de la Cultura Física
en Yateras 2003-2014**

**Eficiência acadêmica na universalização da Cultura Física em Yateras
2003-2014**

Lic. Alain Castaño-Torres*, <https://orcid.org/0000-0003-0622-3195>

Lic. Eleanny López-Ávila, <https://orcid.org/0000-0003-4181-5540>

Lic. Alexander Pérez-Beltrán, <https://orcid.org/0000-0001-6411-9586>

*alainct@cug.co.cu**

Universidad de Guantánamo, Cuba

Recibido: octubre/2022

Aceptado: diciembre/2022

Abstract

The evaluation of academic efficiency is a way to conduct the training of professionals based on economic and social development. In Cuba, the studies carried out so far around academic efficiency do not understand its evaluation as a planned model; therefore, the analyzes are insufficient to achieve a true qualitative leap. Some investigations provide indicators of terminal and vertical academic efficiency, as well as studies of withdrawals by courses and centers, based on statistical information and apparent cohorts. Other authors even propose measures to reverse this situation, so that they contribute to raising the teaching results of the students of the different university careers, to increase the permanence and the rates of graduates. The report exposes the behavior of academic efficiency by source of income in the Universalization of Physical Culture of the Yateras municipality (2003-2014). The universe is made up of the 230 students as initial enrollment and the 197 graduates as final enrollment during the 6 inaugurated courses. Scientific methods were used such as: historical-logical, analytical-synthetic, interview, bibliographic review, etc. students in the cycle. The terminal academic efficiency of the career behaves in a general way for 85.6%. The results shown in this study exceed the academic efficiency of the study developed by the Ministry of Higher Education by 42.8%, with a decreasing trend.

Keywords: Professional Training, Municipal University Center of Yateras-Guantánamo, Academic Efficiency, Universalization, Physical Culture.

Resumen

La evaluación de la eficiencia académica es una vía para conducir la formación de profesionales en función del desarrollo económico y social. En Cuba, los estudios hasta ahora realizados alrededor de la eficiencia académica no comprenden su evaluación como un modelo planificado; por lo que son insuficientes los análisis para alcanzar un verdadero salto cualitativo. Algunas investigaciones aportan indicadores de eficiencia académica terminal y vertical, así como estudios de bajas por cursos y centros, sobre la base de informaciones estadísticas y cohortes aparentes. Otros autores incluso, proponen medidas para revertir esa situación, de

modo que contribuyeran a elevar los resultados docentes de los estudiantes de las diferentes carreras universitarias, para elevar la permanencia y los índices de graduados. El informe expone el comportamiento de la eficiencia académica por fuente de ingreso en la Universalización de la Cultura Física del municipio Yateras (2003-2014). El universo está conformado por los 230 estudiantes como matrícula inicial y los 197 graduados como matrícula final durante los 6 cursos inaugurados. Se emplearon métodos científicos como: histórico-lógico, analítico-sintético, entrevista, revisión bibliográfica, etc. Como fuente de ingreso los habilitados presentan la menor eficiencia académica terminal con un 82.7% y el curso escolar 2009 se presenta como el de menor permanencia de los estudiantes en el ciclo. La eficiencia académica terminal de la carrera se comportó de forma general para un 85.6%. Los resultados mostrados en este estudio superan en un 42,8% con tendencia decreciente, a la eficiencia académica del estudio desarrollado por el Ministerio de Educación Superior.

Palabras clave: Formación Del Profesional, Centro Universitario Municipal de Yateras- Guantánamo, Eficiencia Académica, Universalización, Cultura Física.

Resumo

A avaliação da eficiência acadêmica é uma forma de conduzir a formação de profissionais com base no desenvolvimento econômico e social. Em Cuba, os estudos realizados até agora em torno da eficiência acadêmica não entendem sua avaliação como um modelo planejado; portanto, as análises são insuficientes para alcançar um verdadeiro salto qualitativo. Algumas investigações fornecem indicadores de eficiência acadêmica terminal e vertical, bem como estudos de desistências por cursos e centros, com base em informações estatísticas e coortes aparentes. Outros autores ainda propõem medidas para reverter essa situação, de modo que contribuam para elevar os resultados de ensino dos alunos das diferentes carreiras universitárias, para aumentar a permanência e as taxas de egressos. O relatório expõe o comportamento da eficiência acadêmica por fonte de renda na Universalização da Cultura Física do município de Yateras (2003-2014). O universo é formado pelos 230 alunos como matrícula inicial e os 197 egressos como matrícula final durante os 6 cursos inaugurados. Foram utilizados métodos científicos como: histórico-lógico, analítico-sintético, entrevista, revisão bibliográfica, etc. alunos do ciclo. A eficiência acadêmica terminal da carreira se comporta de maneira geral para 85,6%. Os resultados apresentados neste estudo superam em 42,8% a eficiência acadêmica do estudo desenvolvido pelo Ministério do Ensino Superior, com tendência decrescente.

Palavras-chave: Formação Profissional, Centro Universitário Municipal de Yateras-Guantánamo, Eficiência Acadêmica, Universalização.

Introduction

With the University Reform of 1962, Cuban universities have been linked to economic and social development, fundamentally to agricultural and industrial development plans in different territories of the country.

As a result of the institutionalization process and the maturity and perspective growth of university education, the Ministry of Higher Education (MES) and its

network of universities were created in 1976, made up of: University of Havana, Central University of Las Villas, Universidad of Camagüey, Universidad de Oriente, and the Military Technical Institute. With the new structure, the Pedagogical Institutes and Public Health, the Higher Institutes of Medical Sciences, are subordinated to the MES (National Office of Statistics and Information, 2018).

Starting in 2000 and as part of the Battle of Ideas, and the different programs of the Revolution such as the universalization of Higher Education in the municipalities, the Municipal University Venues (SUM) were created on September 1, 2002. Within the improvement from the university work from the 2009-2010 school year, the Municipal University Centers (CUM) arose, with the integration of the Pedagogical Branch, the Physical Culture Branch, the Medical Sciences Branch and the Ministry of Higher Education Branch with the aim of achieving a greater quality, relevance and integration in the process.

The training of professionals in the different subsidiaries responded to the needs of inserting thousands of young people through broad access to university degrees, and training them as professionals to provide their services within their own territories.

At this stage, under the paradigm of the universalization of knowledge and with a more social than economic impact, these professionals were trained. However, the contribution to local economic and social development has been significant with the graduation of more than 40,000 students with coursework and diplomas. Other contributions of this program have been training, postgraduate studies and research, in order to solve local challenges and improve the quality of life of the people (Pérez and Valera, 2015).

Morales and Cruz (2018) consider that the universalization of Cuban Higher Education achieves a space in the municipality that responds to the needs of local development in economic, social and cultural aspects of human life, making it the cultural and scientific center most important in the community.

The training of professionals in Cuba has gone through different stages, not exempt from difficulties and limitations; but with a scientific endorsement and results in permanent growth, which has considerably raised its professional prestige with great impacts in the national and international sphere. Every day, there are more

people from Latin America and other parts of the world who come to Cuba to carry out graduate or postgraduate studies (Armas and Espí, s. f.).

A diagnostic study carried out by the authors as part of the investigation, and from observations to the different years and groups, detected a certain need to achieve the permanence of the enrollment during the training process and the desertion of students that have a negative impact on the academic efficiency by source of income.

With the problem raised, the following research problem is declared

There are difficulties in the permanence of students during the universalization of the Physical Culture career that affect the academic efficiency of the cycle according to the source of income to the career in the municipality of Yateras.

The following objective is proposed: to analyze the behavior of terminal academic efficiency according to the source of income in the universalization of Physical Culture in Yateras 2003-2014.

The new curricula in Cuban Higher Education

With the creation of the MES, from 1976 the Study Plan "A" is elaborated with its corresponding programs in correspondence with the guidelines and regulations issued by said Ministry. Plan "A" had duration of five years, and began to be developed in September 1977. A distinctive element of this plan was the form of completion of studies by Diploma Work, which strengthened the investigative work in the training of the professionals. As of that year, affiliates of this Institute, CES Rector, began to develop in the main provincial capitals of the country, reaching the number of 14 faculties with two modalities of study: by meeting and evening-night (Hernández and Vargas, 2015).

This plan had a very narrow profile, which constituted a limitation and allowed Plan "B" to be launched in the 1982-1983 academic year, which extended the permanence of the degree to five years. It also increased the number of specializations in the career. In this plan, a semester of work practice at the end of the degree, linked to future professional performance called pre-location practice, or pre-assignment, was incorporated as a new element

As part of the continuous improvement and accelerated development that science and technology achieved in those times, the MES called in 1997 for the introduction of modified "C" Plans, with broad-profile concepts. However, with the introduction of new advances in the scientific-technological spheres, the curricular design appears, tempered to the new demands of social and economic development of the country. This plan allowed for a greater link between study and work, a better articulation of student scientific work, and a more balanced relationship between aspects of a centralized nature; All this was possible thanks to the pedagogical and scientific-technical preparation of the faculty (Horruitiner, 2010).

In the period between 1997 and 2000, work began on the development of the comprehensive approach to educational and political-ideological work, which constitutes the organization's main strategy aimed at developing this work as a social system, which includes work projections. Of the faculties, reflecting in all the objectives, structures and organizational forms, to guarantee the integral formation of the students, with vision in the formation of values.

Universalization and the new Study Plan "D"

On January 17 and 18, 2002, at the II Workshop "The University in the Battle of Ideas", Fidel (quoted in the National Statistics and Information Office, 2018) raised the need to "conceive a new territorially decentralized model, to bring teaching to the places of residence and work of the students, allowing the universities to assimilate a massive enrollment and not giving room for discouragement or failure". From this moment begins a new stage known as the "Universalization of Higher Education".

The new "D" Plans respond to the Broad Profile Pedagogical Model, a predecessor based fundamentally on the need for basic, in-depth training that allows professionals to solve the main problems that arise in the different spheres of their professional performance. In turn, it declares that the fundamental principles that support this model are: the priority of aspects of an educational nature in the training process, in close and indissoluble unity with the instructions, the link between study and work, in its different possible modalities and the wide use of Information and Communication Technologies (ICT).

With the universalization in the new Plan D, two training models are determined: Face-to-Face Model and Blended Face-to-Face Model.

The design and curricular development of Plan "D" is based on an integrating theoretical-methodological model based on humanism and historical-cultural human development, aimed at the comprehensive training of professionals based on a system approach with the improvement of curricular strategies. . The forms of completion of studies established are: the work of diploma and state exam.

The professional training process

Regarding the professional training process, it is defined as the process that is developed through the social relationships that are established between the subjects, in order to educate, instruct and develop the new generations (Rodríguez et al., 2015). In response to the social problems of his time, an active and conscious leadership of the students is achieved. From this definition the social character of the process is inferred and whose realization is based on the broad system of interactions and relationships established between the subjects. involved in it, subjects who are not just simple participants in the process, but become protagonists of it, subjects of change, or that of the transformation of the process.

The three functions of the professional training process are also implicit:

The educational: is that associated with the formation of feelings, convictions, values, will and spirit of the men of a society. Hence, the development of the professional training process will contribute not only to the instruction of the students and the efficient assimilation of the contents; also to form in them values, feelings and wills in correspondence with the provisions of the social order. It is the action aimed at the transformation of the personality; it presupposes a successful interrelation of the educational with the instructive. Education is given through instruction, so the latter must have certain characteristics that make it possible.

The instructive: it can be seen associated with the subject's access to the different knowledge accumulated and systematized by humanity and through which he is forming an image of the world together with the mastery of skills and the development of cognitive capacities.

The developer: development of creative abilities, which not only commits the learner to the process itself, but also develops its transforming potential. This function has to be capable of training transformative men, who develop creative capacities.

Regarding the training of professionals through undergraduate, this is developed through two fundamental processes:

1. The educational teaching process

It is directed in a systematic way and under the direction of the teachers, to the training of the new generations, but it responds to a study plan or curriculum. In this process, the academic, labor and research components move with different degrees of relevance throughout the university career. In the early years, the academic and work aspects have a greater weight, while in the higher years the investigative aspects have greater relevance. However, in undergraduate academics has the greatest significance. However, due to the systemic nature of the training process, the contents of each one of them must be manifested in some way, in the other component.

2. The extracurricular educational process

Directed to the ethical, patriotic, moral and cultural formation of the students. Its objective is the formation of human, civic and intellectual values. This process is carried out in parallel with the educational teaching process and complements the comprehensive training of the future professional, through extension activities in which the university departments that attend to art, sports and other cultural manifestations (including scientific and technical aspects that transcend the curricular framework).

Academic efficiency in the Cuban university

According to Achiong (2011), in Cuba one of the most significant and commonly used indicators to evaluate the internal efficiency of the professional training process in different careers, faculties, institutions and in the global university system is academic or terminal efficiency, also known as egress efficiency or graduation efficiency. This is one of the manifestations of a part of university

academic performance within the framework of said process that influences, together with other external and internal variables, its levels of effectiveness.

The term efficiency comes from the productive world of work, where standards, criteria and measurement procedures refer to the productivity of the worker and the organization. It is a criterion that points, among others, towards the rationality of the processes and the use of resources. In education through empirical representations, it is expressed in the results of a school process that leads to academic efficiency.

Efficiency can then be defined as the optimal level of functionality and consistency to enable the achievement of goals with quality. It refers to the coherence between resources invested, efforts deployed and time spent to achieve the objectives.

The concept of clean or terminal academic efficiency is defined by Almuiñas *et al.* (1994) as "the relationship between the number of graduates of an educational center, of the total that constituted the cohort at the beginning of the career or level of education" (p. 36), a definition that is assumed in this investigation and that is calculated as follows:

$$\text{Total or cycle Academic Efficiency} = \frac{\text{Graduated from each school year}}{\text{Initial registration (five years ago)}} \times 100$$

Another of the terms used: promotion is used as a more direct expression of teacher achievement and according to Vecino (1986), "is the fundamental indicator to measure the results of any education system. It is the starting point for obtaining the academic efficiency indicators, and is defined as the number of students approved out of the total initial final enrollment, expressed as a percentage" (p.89).

The municipality of Yateras

Yateras, one of the 10 municipalities that make up the province of Guantánamo (Cuba), has a population of 18,940 inhabitants, a degree of aging of 13.4 and a territorial extension of 625.34 km², with a population density of 30.7 inhabitants per km². It limits to the North with the Moa municipality, of the Holguín province, to the South with the Manuel Tames municipality and San Antonio del Sur, to the West with Manuel Tames, and to the East with San Antonio del Sur and Baracoa. Its

main activity is coffee production. The territory is divided into six Popular Councils: Felicidad, Monte Verde, La Carolina, Palenque, Arroyo del Medio and Bernardo. The municipal seat is in Palenque.

Sample and methodology

The population is made up of 230 students as initial enrollment in the different academic years and the 5 full-time teachers together with two directors of the subsidiary, all of them coincide with the sample that represents 100%.

The selection of the sample is intentional, since they conform to the criteria established by the researchers by having a relationship with them such as years of experience in Higher Education, guide teachers for each year and tutors responsible for the educational strategy of each brigade.

In the investigation, methods and procedures of scientific research were used, both at the theoretical, empirical, and mathematical level:

From the theoretical level

-Historical logic: it allowed to establish the history of university studies in Cuba up to the universalization and its evolution in the different stages.

-Analytical and synthetic: it was used in the study of primary sources and in the processing of information, both theoretical and empirical, about the changes that occurred in the professional training process.

-Induction deduction: it was used for the analysis of professional training from the international, national and local levels in Yateras.

-Systematization: to critically order and interpret elements of the training through the different study plans and the treatment of academic efficiency by the ministry.

From the empirical level

Interview: it was applied to collect information from managers of the Yateras Subsidiary.

The bibliographic review: it allowed the review of electronic publications, magazines, programs and books on academic efficiency in our universities.

From the mathematical level

Tables: to illustrate the empirical results obtained by the applied techniques

Results

A descriptive study of the training process is carried out according to the different sources of admission to the career. The universe of study is made up of the 230 students as initial enrollment and the 197 graduates to determine the terminal academic efficiency of the career.

Tables 1 and 2 clearly express the behavior of terminal academic efficiency by source of income and by courses, in the period 2003-2014 of the universalization of Physical Culture in the municipality of Yateras:

Table1. Terminal academic efficiency by source of income 2003-2014

Source of income	M.I	M.F	EAT
Enabled	191	158	82.7%
Enabled Chess	9	9	100%
Comprehensive Chess	11	11	100%
School of Physical Education Teachers (EPEF)	10	10	100%
Television Room Workers	1	1	100%
Officials of the Ministry of the Interior	5	5	100%
glories of sport	2	2	100%
Paintings	1	1	100%
Total	230	197	85.6%

Source: Self Made

Legend:

MI: initial enrollment

MF: final enrollment

EAT: terminal academic efficiency

Table2. Terminal academic efficiency by courses 2003-2014

Courses	M.I	M.F	EAT
2003/2008	33	28	84.8%
2004/2009	33	23	69.6%
2005/2010	56	55	98.2%
2006/2011	51	48	94.1%
2007/2012	32	30	93.7%
2008/2013	-	-	-
2009/2014	30	13	43.3%
Total	230	197	85.6%

Source: Self Made

Legend:

MI: initial enrollment

MF: final enrollment

EAT: terminal academic efficiency

Discussion

The results shown in this study exceed 42.8% with a decreasing trend towards academic efficiency in the study developed by the Ministry of Higher Education (MES) in the 2013-2014 academic years. In Cuba, the studies carried out so far around academic efficiency do not include its evaluation as a planned model; Therefore, the analyzes are insufficient to achieve a true qualitative leap.

Other studies carried out by Hernández and Vargas (2017) recorded indicators of terminal and vertical academic efficiency and studies of withdrawals by courses and centers, based on statistical information and apparent cohorts.

Quevedo (2013), adviser to the Department of Professional Training of the MES, in her paper presented at Pedagogía 2013 titled "Analysis and projection of some quality indicators in the training of professionals in Cuba" proposes a group of measures aimed at contributing in educational results of the students of the different university careers; the levels of permanence and graduates are thus raised.

The criteria given by Millo and González (2016) are shared, who defend that the offer of the careers must be given in correspondence with the socioeconomic needs of the municipality and the country, together with the model proposed for the evaluation of academic efficiency. In its three moments it contributes to raising the efficiency indicators of the universities.

Conclusions

1. The evaluation of academic efficiency is a way to conduct the training of professionals based on the economic and social development of the municipality.
2. The Physical Culture Branch in Yateras manages to fulfill its mission of training the professionals that the municipality demands.
3. By source of income, those qualified were those with the lowest terminal academic efficiency in the degree.
4. Enrollment for the 2009 course is of the lowest terminal academic efficiency of the 6 courses developed.

5. The terminal academic efficiency of the career behaved in a general way for 85.6%.

Referencias bibliográficas

- Achiong-Caballero, G. (2011). Didáctica de la formación de educadores en las condiciones de universalización. Pueblo y Educación.
- Almuiñas, J. L.; García del Portal, J. & Romero, B. (1994). El Modelo de Cohorte: Un instrumento de evaluación. CEPES. Universidad de La Habana. Revista de Educación Superior, 14.
- Armas-Urquiza, R y Espí-Lacomba, N. (s. f.) El Sistema de Educación Superior en la República de Cuba. Ministerio de Educación Superior, Junta de Acreditación Nacional.
http://tuning.unideusto.org/tuningal/images/stories/presentaciones/cuba_doc.pdf
- Hernández-Falcón, D. y Vargas-Jiménez, A. (2015). Los indicadores actuales: necesidad de su perfeccionamiento. Revista Pedagogía Universitaria, 20(3).
- Hernández-Falcón, D. y Vargas-Jiménez, A. (2017). Retos de la evaluación de la eficiencia académica en las universidades del Ministerio de Educación. Congreso Universidad, 6.
- Horruitiner-Silva, P. (2010). El proceso de formación en la universidad cubana. Pedagogía Universitaria, 11 (3).
<https://go.gale.com/ps/i.do?id=GALE%7CA466940840&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=16094808&p=IFME&sw=w&userGroupName=anon%7Efb169027>
- Millo-Carménate, V. & González-Morales, V. E. (2016). La eficiencia terminal en la Educación Superior. Conrado, 12(53), 40-47. <http://conrado.ucf.edu.cu/>
- Morales-Rodríguez, I. y Cruz-Acosta, Y. (2018) El proceso de formación del profesional en la educación superior cubana.
<https://www.eumed.net/rev/atlante/2018/04/formacion-profesional-cuba.html>
- Oficina Nacional de Estadística e Información. (2018). Anuario estadístico de Yateras 2017.
- Pérez-Zaballa, L y Valera-Alfonso, O (2015). Impacto de la formación de pregrado y postgrado en las filiales universitarias municipales. Experiencias en las provincias Mayabeque y Artemisa. *Pedagogía Universitaria*, XX (4).
- Quevedo-Baradat, A. (2013). Aspectos informativos sobre el plan de estudios "D" en la Universidad de Ciencias Pedagógicas en Guantánamo. EduSol, 13 (44).
<https://www.redalyc.org/pdf/4757/475748683002.pdf>.
- Rodríguez-Niebla, K; Pérez-Zaballa, L y Valera-Alfonso, O. (2015). Eficiencia académica: un indicador del que se requiere conocer más. Edumecentro, 7(3).
http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2077-28742015000300014

Conflictos de intereses

The authors declare that there are no conflicts of interest

Contribución de autoría

Alain Castaño Torres, Eleanny López Ávila: Investigation and application of the experiment

Alexander Pérez Beltrán: Writing and scientific style