Flipped Classroom for enhancing fluency in secondary students from a public school

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ABSTRACT

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Modern pedagogy proposes constant changes in educational purposes and approaches based on the specific needs of students and individual learning styles. This condition separates traditional educational models from new innovative and creative models strengthened by the use of digital technologies and tools. The present investigation carries out a qualitative and quantitative analysis of the Flipped Classroom model, the benefits and procedures for its application from teaching as teaching strategies and from the student's point of view as a motivating model where he actively participates in the construction of knowledge and improvement of the academic performance as a result of its proper application.

Keywords: EDUCATIONAL APPROACHES; INNOVATIVE MODELS; KNOWLEDGE CONSTRUCTION

RESUMEN

Aula invertida para mejorar la fluidez en estudiantes de secundaria de una escuela pública

La pedagogía moderna propone cambios constantes en los propósitos y enfoques educativos basados en las necesidades específicas de los estudiantes y los estilos de aprendizaje individuales. Esta condición separa los modelos educativos tradicionales de los nuevos modelos innovadores y creativos fortalecidos por el uso de tecnologías y herramientas digitales. La presente investigación realiza un análisis cualitativo y cuantitativo del modelo Aula Invertida, los beneficios y procedimientos para su aplicación desde la enseñanza como estrategias didácticas y desde la mirada del estudiante como modelo motivador donde participa activamente en la construcción del conocimiento y mejora del rendimiento académico como resultado de su correcta aplicación.

Palabras clave: ENFOQUES EDUCATIVOS; MODELOS INNOVADORES; CONSTRUCCIÓN DEL CONOCIMIENTO
Introduction

Educación en su constante dinámica y evolución es fruto de cambios entre ambos desde la perspectiva en enseñanza y en el diferente estilo de contenido en la enseñanza. Esto significa que el profesor y el estudiante evolucionan y se adaptan a los nuevos educacionales que son parte del entorno social y afectivos. Actualmente, estos cambios tienden a ser más acentuados en el tiempo que en el educacional y crear nuevos modelos de enseñanza y aprendizaje para alcanzar una mayor comprensión y adquisición de nuevo conocimiento. Este fenómeno se ha llamado conocimiento, información y sociedad digital (Tourón & Santiago, 2014).

No hay duda de que la tecnología digital ha creado una nueva sociedad social, cultural y, por lo tanto, una nueva, educacional, ya que la educación en el aula no es inmune a estos cambios y nuevas estrategias y metodologías están emergiendo para entender esta realidad. Así, la educación en el aula se caracteriza por la utilización de diferentes tipologías de modelos de enseñanza y aprendizaje, donde la tecnología se ha visto como una herramienta, no como un producto de aprendizaje (Berenguer, 2016, p.1468).

El uso de herramientas tecnológicas puede ser una herramienta muy útil para la enseñanza y el aprendizaje. “La introducción de la herramienta de aprendizaje (HIA) como un nuevo modelo de enseñanza y aprendizaje” (Tourón & Santiago, 2014). Una de las mayores inconsistencias en la educación es que el sistema de enseñanza se centra principalmente en la enseñanza y no en el aprendizaje, y esta es tradicionalmente la educación que es aún parte de la enseñanza del estudiante. En el contexto de la enseñanza, el centro de la enseñanza del estudiante no garantiza que el estudiante se entienda para construir su propio aprendizaje. En consecuencia, este modelo limita la creatividad y el poder de datos o análisis de la aportación de conocimientos en el aprendizaje a largo plazo y sostenible.

Para mejorar la incertidumbre educativa, es necesario entender que los estudiantes aprenden de manera diferente y a diferentes tiempos, a menudo no es apropiado enseñar el contenido del aprendizaje que es diferente en el mensaje y expectativas diferentes. Es importante que los estudiantes sean conscientes de las necesidades cognitivas individuales y promover en cada estudiante las habilidades de aprendizaje, así como el ambiente en el que se desarrolla el aprendizaje.

Dado este caso, el uso de recursos tecnológicos y consolidar modelos de aprendizaje es una estrategia de aprendizaje que organiza actividades basadas en el tiempo, los recursos, los materiales y el interés del estudiante escrito y fuera del aula. Los primeros autores que han venido a este método were Lage, Platt, and Treglia (2000), who proposed a pedagogical model that reverses the traditional class order, in which the theories, concepts and opinions of a given subject took place exclusively within the classroom and expressed only by the teacher. Based on the disappointing results in the level of student learning, a model was developed with a digital perspective in the use of technological tools that allows students to analyze information autonomously and then through activities and case studies, share and consolidate knowledge with other students.

According to Khe Foon Hew (2021), Flipped Classroom has become a popular strategy of work in secondary education with visible results in the learning environment of students, and these exceed three basic cognitive needs: autonomy by learning, the relationship of what is learned with the surrounding environment and the skills needed to apply what is learned. Students are motivated to apply or share what they have learned before starting a class and through this knowledge to solve problems or discuss topics during the class. Teachers who apply the Flipped Classroom have more time to feedback the class and can help students understand contents of a subject by connecting them to problems or situations in their own environment (Van Alten, 2019).

Given the above, it is relevant to argue about the benefits of the Flipped Classroom method in high school students who, despite its application in all disciplines of knowledge, is directed to promote a second language to strengthen communication skills. Learning a language leads to constant practice and remarkable interaction, so the Flipped Classroom model provides benefits as learning strategies for the most efficient use of time in the classroom and autonomously.

In the analysis and search of the literature on the benefits of this method, different advantages can be corroborated to promote learning, regardless of the exact process or strategy used by the teacher. Zambrano (2017) This method allows to take advantage of the time during the class in the short and long term and, at the same time, it is possible to engage in the search for content and share opinions with others through different resources in a face-to-face or virtual way, being the student the protagonist of his own learning. The Flipped Classroom method develops actions in three phases, before, during and after class, which must be analyzed for greater understanding (Arraéz, 2018).

Before class, students learn at their...
own pace, access information or mate-
rial requested by the teacher and this al-
 lows them to come to class more prepared
(García, 2019). Students become more mo-
tivated and engaged by receiving and shar-
ing information and materials appropriate
to their learning styles or based on their
abilities. The teacher, for his part, accesses
and creates material with the support of
technological tools and websites, in addi-
tion to this material can be reused and/or
adapted to other students or class accord-
ing to their needs and cognitive interests.

The teacher must prepare the student for
the activity to be carried out in person
and especially in the activities that will mo-
tivate the students to expand their knowl-
edge. Additionally, the teacher programs
the type of technological resource appro-
priate to the content of the class, through
videos, presentations, e-books, among
others. It is important that the teacher sets
objectives for the class and it is valid to
use schemes such as Bloom’s Taxonomy
(1956), in which students have more control
over their own learning, developing compre-
sensive skills, analysis, synthesis and
above all are able to argue on the basis of
consolidated knowledge. This undoubtedly
improves the academic performance of
students.

However, implementing the Flipped
Classroom model demands a process that
is not so simple. For this, it is necessary
to define and sequentially organize ne-
agogical strategies considering types of
students, cognitive deficiencies, social, cul-
tural and economic environment, which
hinders or limits skills as well as their in-
terests or learning preferences. The success
of the Flipped Classroom method largely
depends on this.

**Methodology**

The present article was based on a
simple methodological design applied to
qualitative and quantitative field research
(mixed approach), where the information
was taken from the primary source, that is,
from the classroom where teachers gradu-
ally implement the Flipped Classroom
method and from where their process and
evaluation can be visible. For the develop-
ment and substantiation of the research,
relevant data were obtained from journals
and websites dully indexed and supported
to obtain greater documented veracity.

During the research process, tech-
niques were used to collect data such as
surveys, interviews with teachers and stu-
dents, and classroom observations that
allowed a deeper analysis of the Flipped
Classroom educational model and the inter-
action that this model promotes be-
tween students, teachers, and contents of
the classroom course. Through these in-
struments, the reflective process, expan-
sion of ideas and strengthening of learn-
ing were evidenced.

Regarding the importance of learn-

deficiencies in the educational sector, both
in teachers and in students, according to
data obtained by the Ministry of Educa-
tion of Ecuador (2016), in which, through
a national evaluation system, it was de-
termined that the level of comprehension
and production of knowledge in a second
language is below the regional average in
secondary education. For this, a holistic
analysis was made using the logical in-
ductive method for the analysis from the
particular to the general that corresponds
to learning in all its dynamics in students.

Additionally, a review of recent sci-
cific articles was carried out with relevant
results from the Google Academic data-
base and in high-impact scientific journ-
als such as Web of Knowledge, Scopus, and
other indexed ones. These data provided a
deeper insight into how the Flipped Class-
room methodology has led to changes in
the transition from traditional educational
models to innovative models supported by

technology.

**Results**

To obtain results, investigative works
were considered in the five years, whose
publications show the effectiveness of the
Flipped Classroom methodology as well
as the difficulties encountered during the
process.

In his research, Vorlegen (2020) ap-
plicated the Flipped Classroom method in
secondary high school students taking a
population of 848 students who took this
modality in a four-week course. The re-
sults indicated the effectiveness of Flipped
Classroom methodology by demonstrating
greater participation and interaction in
the classroom compared to traditional
teaching models.

By his part, Bond (2020) recounts
three important segments during the ap-
lication of Flipped Classroom. First, Flipped
Classroom must be applied in small groups
of students in which the in-

teraction is fluid. Second, Flipped Class-
room must be directed by the teacher to
motivate research before and after class,
in this way the classroom is intended for
practice and reaffirm knowledge. During
this practice, the teacher uses digital re-

sources to share, reaffirm or contrast in-
formation that the students have previous-
ly investigated. Third, the student assumes
the responsibility to continue the analys-

is of the information at home, to later share it
through websites or e-Learning platforms.

The research of Díaz (2017) shows the
effects of Flipped Classroom on motivation and learning to read. For this,
it organized an experimental group with

the traditional model and another group
under the Flipped Classroom model, as a
result, the traditional model was predic-
tive and the students maintained the same
level of understanding and analysis guided
exclusively by the opinion of the teacher.

On the other hand, the group directed by
Flipped Classroom showed significant dif-
ferences and visible progress in the analy-
sis, interpretation of content and develop-
ment of linguistic skills.

Studies carried out in Ecuador such as
Cantuña (2020), who mentions the educa-
tional evolution with new strategies and
methodologies integrating ICT, and con-
siders the inverted classroom or Flipped
Classroom as an innovative model that
merges the learning space at home with
the face-to-face classes. It stands out that
this Flipped Classroom model adapts to all
subjects, with a greater impact on learning
the English language for the development
of linguistic skills.

Implementing pedagogical mod-
el in the teaching-learning of a second
language is a necessity for teachers
and students (Paredes, 2020). For this,
the Flipped Classroom model is a signif-
icant contribution to the development of
English language grammar, especially be-
cause it encourages the use of technologi-
cal tools and this allows the practice of
the language in an interactive way and
leaves aside the traditional, memorized ap-
proach that has been widely questioned.

Regarding the importance of learn-
ing through the Flipped Classroom methodology, Poncè (2021) highlights that a high percentage of teachers know active technological methodologies in the teaching-learning process, but not the efficient way. Thus, not applying a methodology in an organized manner discourages the development of language skills and discourages the practice of what is taught in class. Therefore, the Flipped Classroom strengthens the autonomous learning of students and facilitates collaborative work in the classroom.

Solis (2020) suggests that the use of the flipped classroom is an efficient strategy to develop critical thinking skills in different areas and/or disciplines. The results of the research were based on observation techniques and surveys and it was concluded that the Flipped Classroom contributes positively to the development of thinking skills to consolidate meaningful learning and improve the academic performance of students.

One of the main difficulties in teaching-learning processes currently is to keep students motivated in the classroom, and the use of technological tools are valuable as long as the interaction and learning environment are adequate. Evidently, we live in a generation of digital natives whose interests".

"It is considered as a pedagogical opinion in the teaching of the English as a second language acquisition in Bachelor level to Rebeca Molina, who has several years applying the Flipped Classroom strategy in the teaching of English from elementary basic education and she says “the contribution of the Flipped Classroom strategy to pedagogical innovation processes has produced promising results. Thus, traditional education remains in the past alongside memorization processes to open up new educational models in which students propose what they want to learn and why they want to learn for”.

Discussion of results

Despite the benefits of Flipped Classroom, (Aguilera-Ruiz, 2017) mentions some inconveniences that could occur during its application in the classroom as the resistance that students can show and opt for the traditional method, this is a denial to their comfort zone. Additionally, Ruiz (2016) refers to the main need to apply this type of method, having adequate facilities and specialized equipment. To do this, the teacher must appropriate the pedagogical project and be motivated for its application, in addition to having some degree of communication skills to convince students, otherwise the method will not have optimal results.

As it can be observed in Table 1, the 62% of students mentioned they remember best the things when they read; it indicates a satisfactory result.

As it can be observed in Table 2, the 70% of students mentioned they understand better when they see videos or filmstrips; it indicates a satisfactory result.

As it can be observed in Table 3, the 64% of students mentioned they like to use charts and graphs; it indicates a satisfactory result.

As it can be observed in Table 4, the 74% of students mentioned they learn best when they listen to other people speak; it indicates a satisfactory result.

As it can be observed in Table 5, the 74% of students mentioned they learn best when they listen to other people speak; it indicates a satisfactory result.
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Emili A. Solórzano Alcivar, Carlos H. Chancay Cedeno

The Flipped Classroom model applied to learning the English language in its different language skills is considered by Cedeño-Macías (2010) a successful way to innovate in education when planning academic activities, promotes autonomous learning of students and promotes meaningful knowledge outside the classroom through the various digital applications used and learned by the teacher. It also facilitates the development of skills and abilities to activate English language knowledge through the use of various interactive content.

Other authors such as Martínez (2018) argues that the lack of natural exposure and the poor management of technological tools in the classroom are the cause of a low level of the English language in both grammatical skills and contextuialized vocabulary knowledge. In reference to the statement made by the author, opinion is shared on the importance of digital objects within the classroom to strengthen communication skills in which the Flipped Classroom model allows to interact having a prior knowledge assumed by students, it also taken by searching for information on web pages.

According to Paredes (2020) English language learning will depend on the teaching approach based on a model that involves the use of ICT for the development of a more interactive teaching didactics. The Flipped Classroom model is essential for learning a foreign language in which critical thinking and communication practices through technology guarantee an adequate proficiency level.

Conclusions

The Flipped Classroom model facilitates learning in students in all disciplines of knowledge, and its methodology is based on the transmission of information using technological tools such as digital devices before, during and after classes. These practices allow students to individually discover their own learning styles, improving academic performance and their interest in experimenting with new ways of learning.

The incorporation of the Flipped Classroom method favors teaching practice by changing the traditional view that the teacher is the center of attention in class for an innovative vision in which the student is the main actor of the teaching process-learning, with dynamic, flexible activities that adapt to the real needs of the educational environment in which the student coexists.

The practice of the English language through the Flipped Classroom method promotes voluntary participation and satisfies the communicative need of students in a second language, these aspects discard the traditional grammatical and translation approach in which memorization was considered a learning, for an innovative model with a communicative and constructivist approach, that is, that the student decides what to learn, how to learn and why to learn, building their own learning.

References


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