

## Tics and Instructional Management: Educational Practices

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**Abstract.** The National Evangelical University in its operations, before March 2020, had Office 365, with use limited to the administrative area. Given the situation in the field of health worldwide, it was forced to close its physical doors because of the COVID-19 pandemic, giving rise to a contingency plan for its teaching processes integrating ICT, privileging the development of an education with values of the Kingdom of God that allows its members personal fulfillment and reinforcement of their commitment to the transformation of their family and social environment. The objective of this work is to analyze the influence of the Kemmis action-research model supported by ICT in the teaching processes at UNEV during the COVID-19 pandemic. It is research of non-experimental design and descriptive scope. The results show that the Kemmis action-research model, with the holistic incorporation of ICT at UNEV, facilitated the continued operation of its academic processes uninterruptedly, favorably achieving acceptance in the face of the complex change from face-to-face to virtual modality in an accelerated manner. In addition, collaborative work was evidenced as social learning, integrating knowledge communities.

**Keywords:** Learning, Teaching, Educational Innovation, Research, Educational Technology, ICT, Educational Innovation, Education Technology.

## **1 Introduction**

The new trends promoted by Information and Communication Technologies are increasingly relevant, and university life is one of the main axes where their incidence has become essential, rethinking the development of its functions, envisioning a new educational paradigm, affecting the formation of the individual, who needs to exhibit functional competences during his life. Therefore, in this context, the need to adopt an action-research model that allows the adaptation of the teaching process to the transition from face-to-face to virtual education is born.

## **2 Theoretical Framework.**

Learning as a multidisciplinary field, composes a series of elements of education, the transmission of knowledge has transcended borders, motivating the meeting of competitiveness, creating a new line of learning and communication also promoting collaborative learning.

Collaborative learning could be defined as the work that students do in collaboration, with the intention of achieving a common goal. This learning inherently integrates technology, "technological innovation in ICT has allowed the creation of new communicative and expressive environments opening possibilities to develop new formative, expressive and educational experiences" (Ferro et al., 2009).

ICTs are associated with education and collaborative learning, making interaction viable. "ICT as a set of tools linked to the transmission, processing and digitalized storage of information that can be transformed into knowledge; they are allied to the acquisition of knowledge and the development of both technological and intellectual skills" (Luna, 2018).

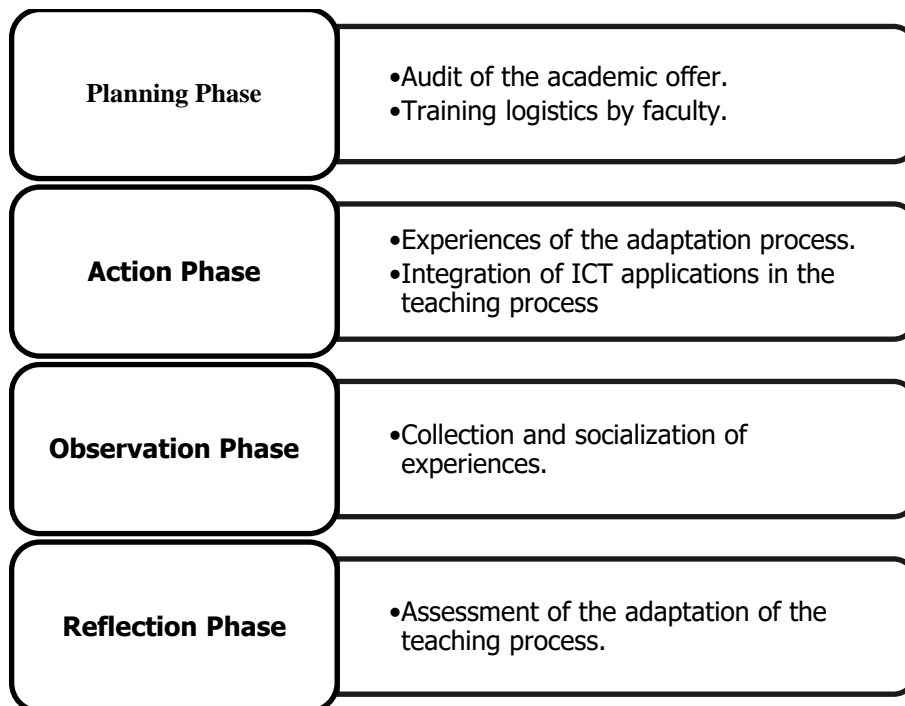
The creation of Knowledge Community in an IES, It is a project to solve specific issues, as it is today to implement virtualization as a teaching practice adapting the digital culture. "The integration of Technologies in education implies taking into account the relationship to be established between the use of new media and educational innovation" pose (Ricardo & Iriarte, 2017).

### 3 Method

#### 3.1. Context

The study gathers the experiences of the process of adaptation from the face-to-face modality to the virtual modality at the Universidad Nacional Evangelical - UNEV, Santiago Campus, DR. In order to analyze the influence of the Kemmis research-action model supported with ICT for the teaching process during the COVID-19 pandemic.

In summary, the Kemmis model provides the relevant tools to develop a contingency plan through the phases of planning, action, observation and reflection in the mobility of the face-to-face teaching process to the virtual scenario facilitated through the Office 365 platform, specifically, the Teams application.



**Figure 1.** Kemmis Action Research Method adapted to the process of mobility from face-to-face to virtual teaching at UNEV.

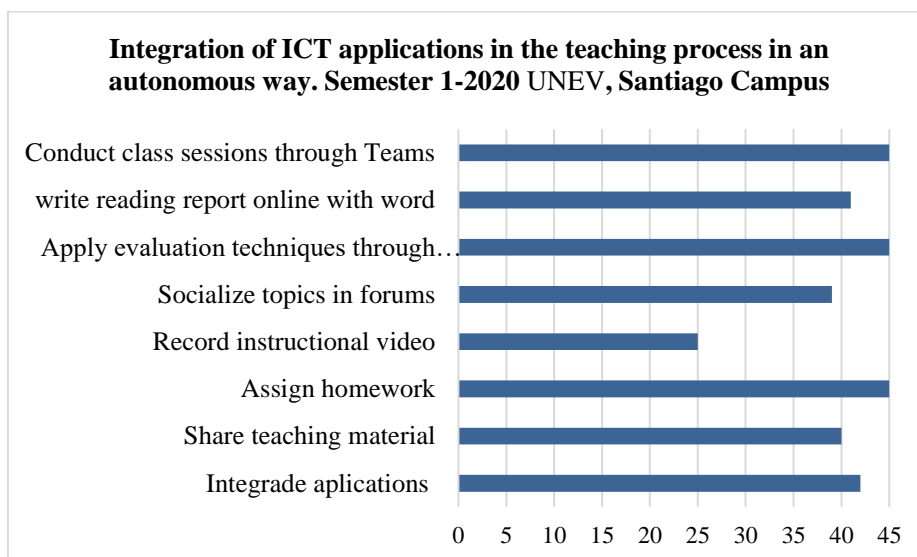
**Source:** Own elaboration.

### 3.2. Design

This study has a mixed approach based on a transeccional design with a descriptive methodology. Given the aspects that converge due to the nature of the object of study, open interviews are conducted and structured surveys supported by non-probabilistic sampling are applied to 45 teachers from different training areas to check the validity of the model used. Both instruments are composed of 15 items addressing each stage of the Kemmis action research model for the mixed assessment of this study.

### 4 Results

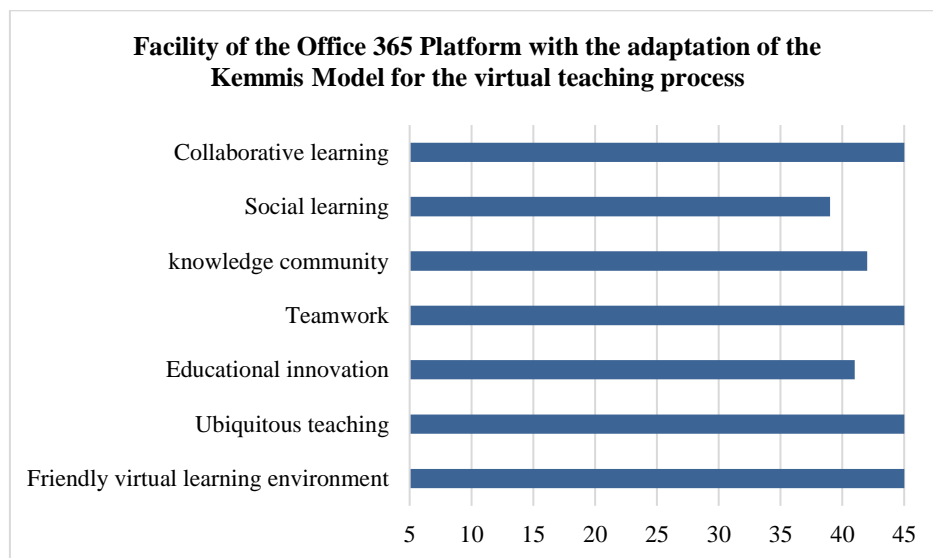
The results obtained after the process of adapting teaching to the virtual modality through the Kemmis model used showed that the integration of ICT applications in the teaching process was favorable.



**Figure 2.** Kemmis Action Research Method: Integration of ICT applications in the teaching process in an autonomous way.

**Source:** Own elaboration.

Regarding the assessment by the key actors of the teaching process, it is evident that the Kemmis action-research model used in conjunction with the Office 365 platform fosters collaborative learning, teamwork, thus promoting the community of knowledge and social learning, externalizing the intrinsic connection of each of the key actors of the educational process. In addition, ubiquitous teaching in a friendly virtual learning environment.



**Figure 3.** Kemmis Action Research Method: Ease of the Office 365 Platform with the Kemmis Model adaptation for the e-learning process.

**Source:** Own elaboration.

## 5 Discussion

The data collected in this study made it possible to analyze the influence of the Kemmis action research model supported with ICT for the teaching process during the COVID-19 pandemic, safeguarding the availability of the teaching process for the current and successive quarters. It should be noted that collaborative learning inherently integrates technology. Likewise, "The integration of Technologies in education implies taking into account the relationship to be established between the use of new media and educational innovation" (Ricardo & Iriarte, 2017). Consequently, the adoption of the model favors the integral development of the educational community

## 6 Conclusions

The Kemmis action research model provides a scenario for integrating ICT applications for the teaching process in a transition from face-to-face to virtual mode. This approach provides tools that allow contextualizing the object of study and applying each of its phases in favor of a holistic integration in order to adopt and strengthen the digital competences necessary for a successful teaching process, where the achievement is evidenced in the complex change of moving from the face-to-face mode to the virtual mode in an accelerated manner. In addition, collaborative work was evidenced as social learning integrating knowledge communities.

## 7 Limitations and Future Research

### 7.1. Limitations.

Weakness in the management and use of technology, in addition, apprehension to change.

### 7.2 Future Research

Integration of ICT applications and tools in the teaching process with the inverted classroom methodology.

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