Chapter 4 Implementation of Virtual Card in Microsoft Teams Platform

Capítulo 4 Implementación de Carnet Virtual en Plataforma Microsoft Teams

SUAREZ-AMÉNDOLA, Rosario de Fátima†*, ORTEGA-RODRÍGUEZ, Ana Luisa and LEGORRETA-BARRANCOS, Leydi Elena

Tecnológico Nacional de México – Instituto Tecnológico de Campeche

ID 1st Author: *Rosario De Fátima Suárez-Améndola /* **ORC ID**: 0000-0003-1600-7875, **Researcher ID Thomson**, Q-3394-2017, **CVU CONAHCYT-ID** 279998

ID 1st Co-author: *Ana Luisa, Ortega-Rodríguez /* **ORC ID**: 0000-0002-0134-2008, **CVU CONAHCYT ID**: 228237

ID 2nd Co-author: *Leydi Elena, Legorreta-Barrancos /* **ORC ID**: 0000-0002-8918-4226, **CVU CONAHCYT ID**: 725501

R. Suárez, A. Ortega, L. Legorreta

*rosario.sa@campeche.tecnm.mx

Abstract

In 2020, due to the pandemic, higher education institutions had to make changes in most of their processes, to transform them from face-to-face to virtual, one of them was tutoring, however, we faced different challenges and adaptations, due to the conditions of the students of the different study programs, as well as the digital skills of the tutors, in other words, a process of transition from the face-to-face mode to the virtual mode, where several elements and activities had to be adapted in the virtual platform used, so that this accompaniment could be followed to each of the students of the Technological Institute of Campeche and fulfill an important task such as tutorials. The objective of this work was the implementation on virtual platforms of the activities carried out by the tutors of the Technological Institute of Campeche

Tutorías Virtuales, Plataformas Educativas, TIC en la Educación, Competencias digitales

Resumen

En el año 2020, debido a la pandemia, las instituciones de educación superior tuvieron que realizar cambios en la mayoría de sus procesos, para transformarlos de presenciales a virtuales, uno de ellos fue la tutoría, sin embargo, nos enfrentamos a diferentes retos y adaptaciones, debido a las condiciones de los estudiantes de los diferentes programas de estudio, así como a las competencias digitales de los tutores, es decir, un proceso de transición de la modalidad presencial a la modalidad virtual, donde se tuvieron que adecuar diversos elementos y actividades en la plataforma virtual utilizada, para que se pudiera dar seguimiento a este acompañamiento a cada uno de los alumnos del Instituto Tecnológico de Campeche y cumplir con una tarea importante como son las tutorías. El objetivo de este trabajo fue la implementación en plataformas virtuales de las actividades realizadas por los tutores del Instituto Tecnológico de Campeche

Tutorías Virtuales, Plataformas Educativas, TIC en la Educación, Competencias digitales

1. Introduction

With the arrival of the Pandemic caused by COVID-19, Educational Institutions, including Higher Education Institutions, were forced to make use of Virtual Platforms for teaching, therefore, teachers had to drastically change the activities they carried out in a face-to-face manner to virtual environments (Rojas, Martinez, & Riffo, 2020), because they had to continue carrying out both academic and administrative activities.

Within the Instituto Tecnológico de Campeche, campus of the Tecnológico Nacional de México, within the activities carried out by teachers, we have the Tutorials, it is worth mentioning that this activity is generally carried out by Full-Time Professors, as stated in the Academic Administrative Guidelines in chapter 15 called "Guidelines for the Operation of the Tutorial Programme" (TecNM, 2015).

As a result of the COVID- 19 pandemic, digital competences had to become indispensable for carrying out academic work, both for teachers whose activities are carried out in five areas, which are:

–   Teaching,
–   Tutoring,
–   Liaison,
–   Research and
–   Academic management

For the students, the activities they carry out with the teachers are the Online Classes and the Tutoring Sessions, which had to be taken to the virtual plane. Based on the previous paragraph, we can state that these dizzying changes in the use of Information and Communication Technologies (ICT) also brought together two generations: the ICT natives and the ICT immigrants. In other words, the NET generation, which was born in the last decades of the last century, and generation X and their predecessors, where technologies can be difficult to assimilate and use, unlike those where part of their training had a relationship with some ICT element, generally a computer.

In this sense, we can talk about a generation gap and therefore a digital gap in relation to teachers with respect to their students, as you mentioned, it may be due to the fact that the new generations use ICT more, either because they learnt it in their school years or as a result of the computer culture that has been formed in recent years.

People in this technological environment faced drastic changes in this pandemic, one of them was: being forced to acquire digital teaching competences in an immediate way, being a requirement to use digital educational platforms, such as:

– Google Suite for Education,
– Microsoft Teams
– Moodle

In order to teach their classes, in addition to their tutoring sessions in the different educational programmes to which they belong.

ICT in education is not only the incorporation of some tools or platforms to the educational process, it is important to design learning objects in them in such a way that they support the construction of meaningful learning, without this representing a burden for the teacher, on the contrary, it should facilitate their activities including planning and evaluation, While it is true that one of the most widespread uses of ICT use are online or virtual classes, they can be used in tutoring sessions (as mentioned at the beginning), academic advising, among others.

Academic tutoring, as a process of accompaniment, implies that the tutor must have a stipulated profile, but also, with the arrival of the pandemic, must possess digital competences that support him/her in carrying out his/her work, using the formats established in each institution.

At the Instituto Tecnológico de Campeche, the established format for recording the Tutorial Activity is the Student Tutorial Card. This was given to each student at the beginning of their degree course during the induction talk (Figure 1.1), where they were asked to write down their details, the details of the corresponding tutor and the details of the person in charge of the departmental coordination of tutorials to which their degree course belonged, see Table 1.1.

Table 1.1 Departments and Careers of IT Campeche

Career	Academic Department
Industrial Engineering	Industrial Engineering
Management Engineering	Economic-Administrative Sciences
Business Management Engineering	
Architecture	Earth Sciences
Civil Engineering	
Computer Systems Engineering	Systems and Computing
Information and Communication Technology Engineering	
Mechanical Engineering	Metal - Mechanics
Chemical Engineering	Chemical and Biological Sciences
Environmental Engineering	

Source: Own Elaboration

Figure 1.1 Tutoring Card

Source: Carnet de Tutorías del Instituto Tecnológico de Campeche

In this card all the activities attended by the students were recorded. After completing a certain number of activities, a complementary credit is granted, as indicated in the Tutoring Guidelines (TecNM, 2015).

With the arrival of the Pandemic, the Carnet was not delivered to students who entered in 2020 and 2021, which is why it was designed and implemented through a digital platform, in this case: Microsoft Teams.

It is important to mention that before the pandemic the platform used by the Instituto Tecnológico de Campeche was the Google Suite, i.e. Classroom, where some teachers, in order to have contact with their assigned students, created groups on these platforms (Figure 1.2), which facilitated the tutorial work between teachers and students.
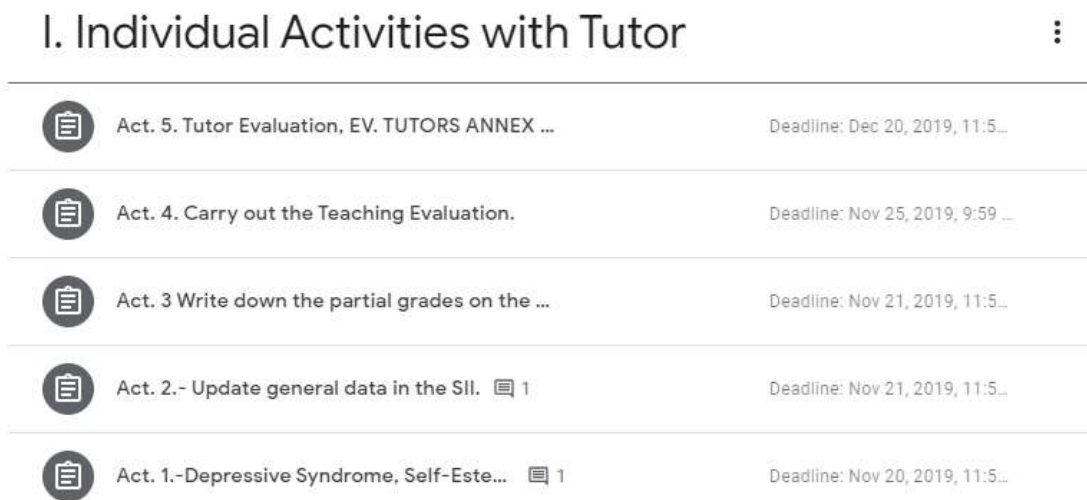
Figure 1.2 Groups in Classroom Platform
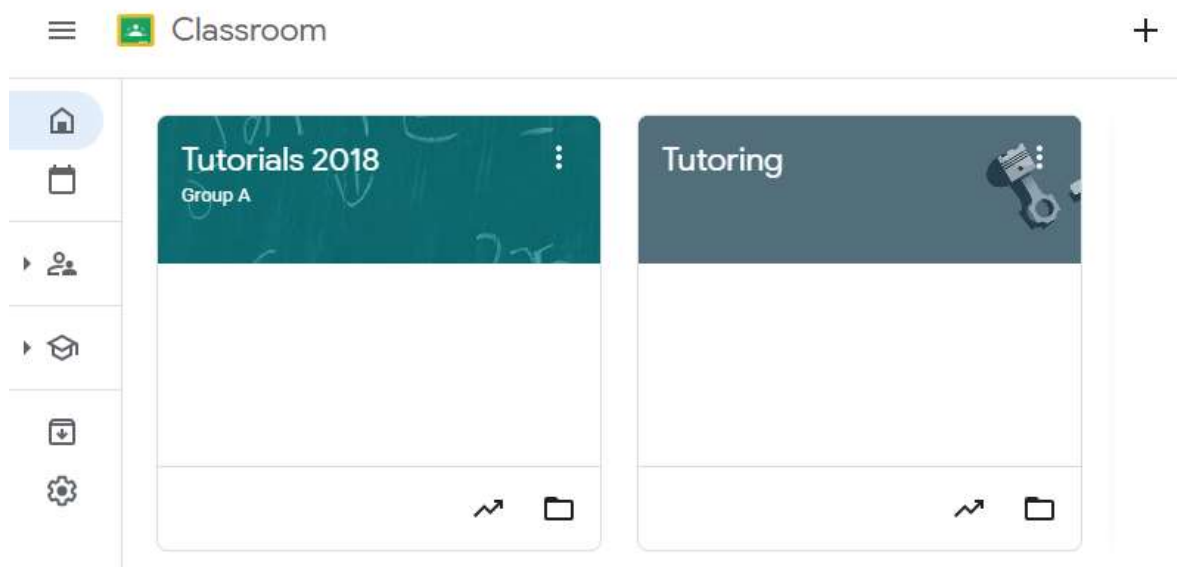
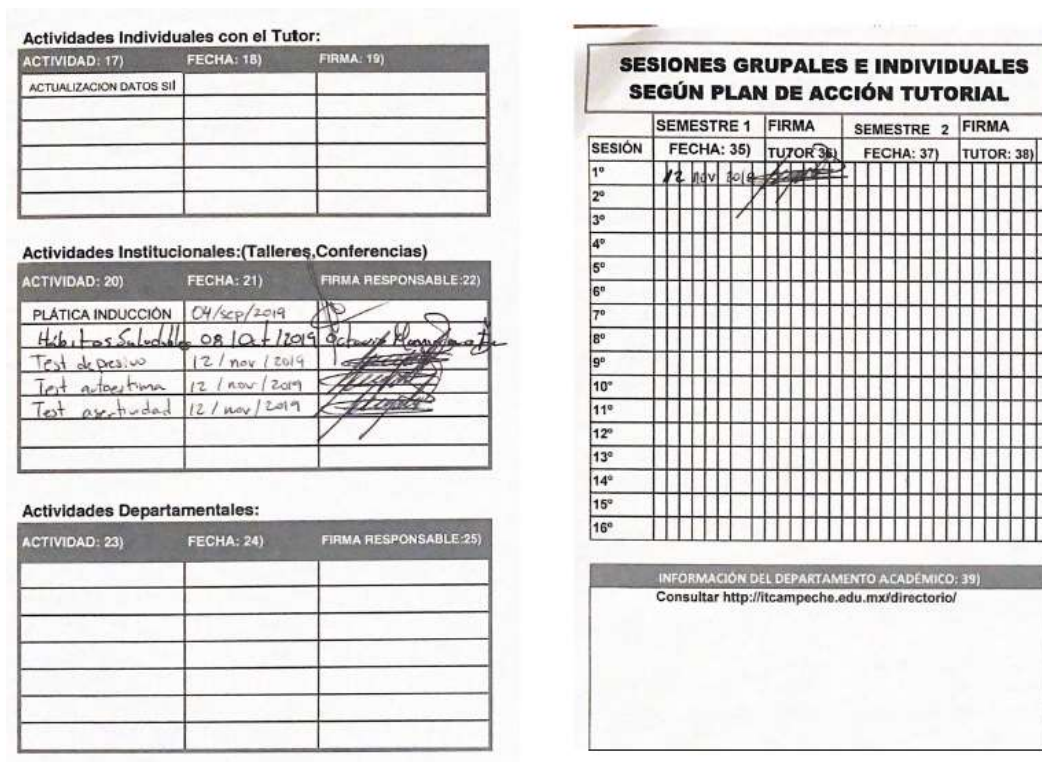*Source: Own Elaboration in Classroom Platform*

The activities were put on the platform, (Figure 1.3) the student did them and they were registered in the Student Card (Figure 1.4).

Figure 1.3 Activities in Classroom Platform

Source: Own elaboration in Classroom Platform

Figure 1.4 Registro en Actividades de Carnet

Source: Instituto Tecnológico de Campeche Tutoring Card

In the second semester of 2020, the Technological Institute changes its platform, being Microsoft Teams, and as an implementation strategy a massive training on the use of the platform was given.

2. Development

It is important to remember that any implementation process in virtual environments must take into consideration the stakeholders or people interested in this process, so that they can provide valuable information in the design or development of the process so that its adaptation is simple and very similar to that normally used in a face-to-face environment, the actors involved for this are: (figure 1.5)

–   Tutor Person
–   Student body
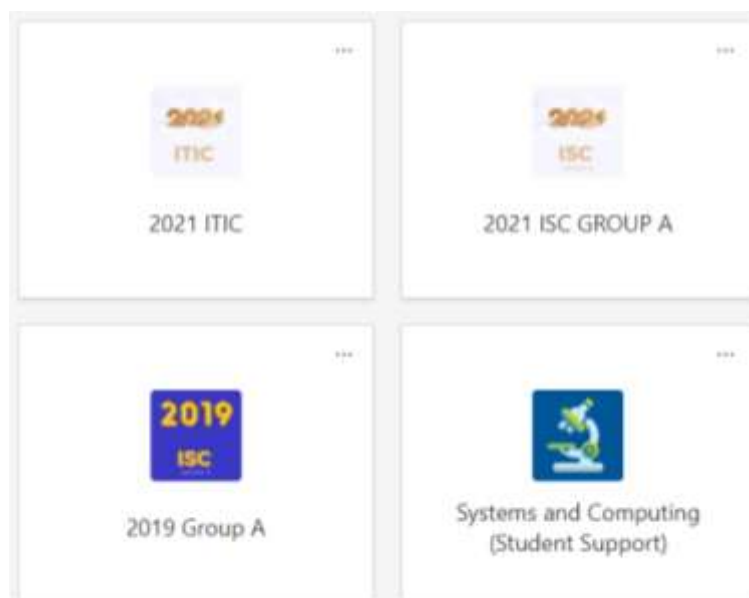–   Tutoring Coordination.

Figure 1.5 Stakeholders

Source: Own Elaboration

After determining the interested people, the next step was to generate the tutoring groups in the Teams Platform (Figure 1.6), as it had been done in the Classroom Platform, an important point was the generation of a group where all the students of the academic department Table.1.1

Figure 1.6 Tutoring Groups on the Teams Platform

Source: Own elaboration in Microsoft Teams Platform.

The support group (of all students) is managed by the departmental coordinator and serves for information purposes of departmental and institutional activities related to tutoring as part of the tutoring intervention.

An important point to consider for the realisation of the Virtual Tutoring Card is the fact that all the people interested in the Card could visualise it, so that they could have an evidence of the realisation of their activities, taking into account that these activities can be: being these activities:

- Individual
- Group activities
- Departmental
- Institutional

The first two are carried out by teachers and students, the third by the departmental coordination and the last by the Institutional Coordination, although the register can be kept by either of the two. The way to register in the physical card is to write down and sign the activity carried out by the person in charge of that activity (Figure 1.4). It is worth mentioning that a physical record is also kept for each activity that is carried out in order to have statistical data for it. In this way, if the student does not have his or her card, he or she can come to the office another day to have the activity recorded (Figure 1.7).

Figure 1.7 Register of Attendance at Institutional-Departmental Activities

Source: Instituto Tecnológico de Campeche Attendance Record Form

Another important aspect considered when implementing the virtual card proposal was that both the tutor and students could have access to it and be able to print it whenever they needed to.

In Microsoft Teams, as in Classroom, Tasks can be scheduled (Figure 1.8), but because everything was digital and the physical card was not available, tasks could not be recorded in it.

Figure 1.8 Activities as Tasks in the Microsoft Teams Platform

Source: Own elaboration in Microsoft Teams Platform

Therefore, it was necessary to implement within this platform, the Virtual Card, for this it was thought to do it through the Microsoft Teams Notepad, which is linked to the Groups, after several attempts it was possible to have the prototype that is presented in this work (Figure 1.9).

Figure 1.9 Class Notepad of a Tutoring group in Microsoft Teams
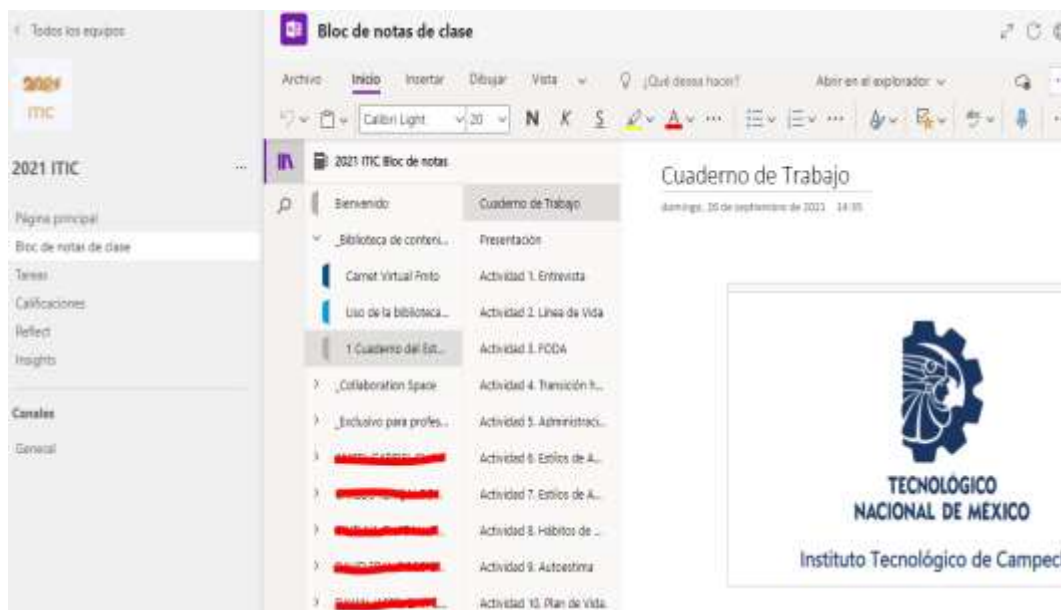
Source: Own elaboration in Microsoft Teams Platform

Each team generated in Microsoft Teams has its own linked Notepad from the Microsoft One Note Linked platform, where text, images, handwritten notes, among other digital objects can be stored (Microsoft Teams for Education, 2022).

It is important to clarify that although each group in the Microsoft Teams platform has a linked Notepad, this is not generated automatically, but only when the teacher of the group requests it from the platform as will be explained below.

Each Class Notepad has:

− Student Notepad,
− Content Library
− Collaboration Space.

The Student Notepad is a private space where only the student and the tutor can view their content, but a student cannot view the content of their classmates, generating privacy of the activities they carry out. (Microsoft Teams for Education, 2022).

The Content Library is the section where the teacher can put content but for the students it is considered a reading space in this way the tutor shares materials that are used by the students (Microsoft Teams for Education, 2022).

The Collaboration Space as the name suggests is a space for both tutors and mentees to share information (Microsoft Teams for Education, 2022).

One of the easiest ways to create the Notepad was to create it from One Notes and from there generate the Notepad in such a way that it is not linked to any Group, so that when the Class Notepad is created it can be taken from the existing one (Figure 1.10).

Although there may be other ways of generating a Notepad, it is important to consider that a template was created by the Institutional Coordination of Tutoring so that it could be shared with all tutors and from there each tutor could generate his or her Virtual Card in his or her tutor groups.

In other words, it is only necessary to share the Carnet once before it can be used again, so this is the process explained in this process.

Figure 1.10 Creating a Notepad in Microsoft Teams
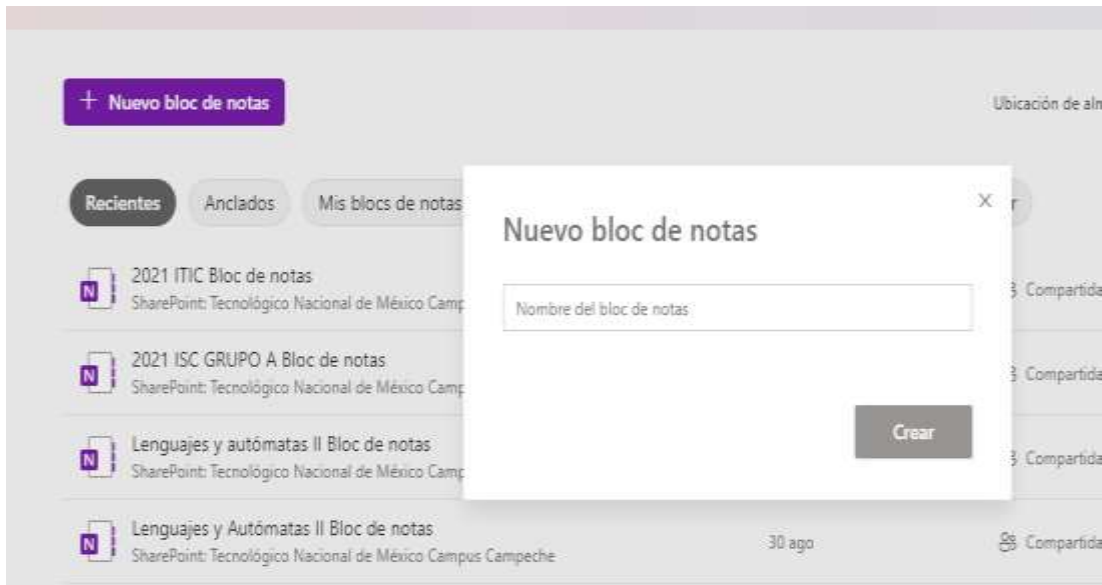
Source: Own elaboration in Microsoft Teams Platform

When the Notepad is created, the elements that make up the Virtual Card are placed on each page, just as they are in the Physical Card, generating the cover page, the section for the Register of Tutoring Activities and the Register of Group Tutorials (Figure 1.11).

When generating the class notepads, it was decided that this would be done from the existing notepad, selecting the tutoring card; it is important to note that at this point only the teacher's notepad is generated. It is important to note that at this stage only the teacher's notebook is generated. With this measure, each group that is created will create its own notebook in this way, so that everyone will be able to have their own Virtual Card.

Figure 1.11 Virtual Card sections

Source: Own elaboration in Microsoft Teams Platform

Due to the privacy generated by the student's notepad, it is possible to establish the activities that the student will carry out in the same notepad, preferably in a different section of the Virtual Card, the result of these activities can be seen in Figure 1.12 as the Student Workbook.

Since the activities that are written in the notebook are saved, it is not necessary to recreate them in the new notebooks that are generated, only the last updated one should be used to maintain the changes made.

Figure 1.12 Activities in the Student Workbook

Source: Own elaboration in Microsoft Teams Platform

Once both elements were generated, we proceeded to distribute them to each student. To do this, it is necessary to open the Notepad in the browser, so that it appears in the Class Notepad menu, (Figure 1.13) this will allow us to make a type of distribution.

Figure 1.13 Class Notepad Menu
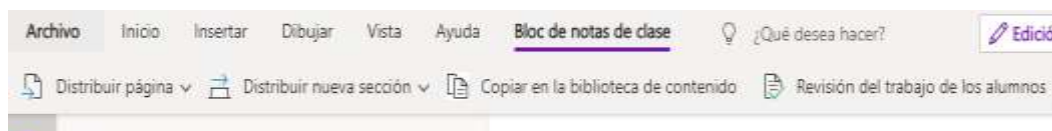
Source Microsoft Teams Platform - Notepad section

The distributions allowed in Notepad are:

− Distribute page, the highlighted page is distributed.
− Distribute new section, a section is appended.
− Both are distributed in the student's notepad.

In this way, only the pages that are necessary will be distributed according to the student's activities indicated in the Tutor's Tutorial Action Plan.

3. Outcome

The result was to have a Virtual Card and Workbooks according to the needs of the group, the semester and the educational programme in the different groups where it was implemented, in this case it started with the department of Systems and Computers, currently it has been implemented in other academic departments such as Economic and Administrative Sciences, Earth Sciences, Metal Mechanical Engineering, missing the departments of Industrial Engineering and Chemical and Biochemical Engineering due to the peculiar nature of how tutoring is done in those departments.

The activities carried out by the students could be recorded in the Virtual Card, as we can see in Figure 1.14; this record is made by the teacher using the submenu of revision of the students' work, in order to facilitate the record.

Figure 1.14 Virtual Student Card in the Class Notebook

Source: Own elaboration in Microsoft Teams Platform

One of the advantages of the Notepad implemented in the Microsoft Teams platform is that the learner can print out a physical or Portable Document Format (PDF) file, so they can have evidence of their activities (Figure 1.15).

Figure 1.15 Notepad print out

Source: Own elaboration in Microsoft Teams Platform

Another advantage of the Virtual Card is that in the Activities area the rows can be increased according to the work done by the student, which improves the Physical Card because there were only a limited number of rows for the registration of activities, in this case it was necessary to use another Card to continue registering more activities.

4. Acknowledgements

5. Conclusions

Although it is true that the task of implementing the Virtual Carnet may seem simple, there is an arduous task in carrying out the different tests to which this task was subjected, learning from the mistakes made, in order to improve the design, to obtain the result that is presented today,

It is important to mention that the Virtual Card was only applied to the Systems and Computing area as a pilot test, it is intended to replicate it in the other departments so that tutors, after training, can use the Virtual Card so that students and tutors can have evidence in the same virtual group where tutoring is offered, in addition to the fact that it can increase the activities or dynamics that the student can carry out within the Tutorial Action Plan designed by the tutor.

Once implemented in all departments, its effectiveness and efficiency should be evaluated in order to make continuous improvements, giving rise to new research related to tutorial work and generating new knowledge that can be shared with other institutions.

References

Microsoft Teams para Educación (2022). *Usar Bloc de notas de clases de OneNote en Microsoft Teams.* Obtenido de Microsoft: https://support.microsoft.com/es-es/topic/usar-bloc-de-notas-de-clase-de-onenote-en-microsoft-teams-bd77f11f-27cd-4d41-bfbd-2b11799f1440

Rojas, O., Martínez, M., & Riffo, R. (2020). Gestión Directiva y Estrés Laboral del personal, Mirada desde la Pandemia COVID.19. *Revista on line de Política e Gestão Educacional, 24*(3), 1226-1241. doi:https://doi.org/10.22633/rpge.v24i3.14360 obtenido el día 14 de septiembre de 2022 en https://www.redalyc.org/journal/6377/637766245003/

TecNM. (2015). Manual de Lineamientos Académicos Administrativos del Tecnológico Nacional de México. Ciudad de México: TecNM.