

Teacher-student perception on the online education model and ICT competences.

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Summary

The purpose of taking into account the teacher-student perception in the area of knowledge and skills of the use of Information Technology and Communicationis presented because today the situation was presented both for teachers and students and had to adapt to the virtual context, however despite the fact that a year has passed, both actors continue to have great challenges in reducing the digital divide and in the same way this style of the teaching-learning process has allowed them to develop self-learning capabilities since both had to be trained in this sense, however it was believed that the students had the advantage about the teachers and some said they had the appropriate knowledge for this type of teaching, despite this both required training in the ICT uso.

Keywords. Competences, Information and Communications Technology, digital divide.

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Abstract.

The purpose of taking into consideration the teacher-student perception in the area of knowledge and skills of the use of Information and Communication Technology is presented because today the eminent situation was presented both for teachers and students and they had to adapt to the virtual context, however, despite the fact that a year has passed, both actors continue to have great

challenges in reducing the digital divide and in the same way this style of the teaching-learning process has allowed them to develop self-learning capacities. that both had to be trained in this regard, however, it was believed that students had the advantage over teachers and some claimed to have adequate knowledge for this type of teaching, despite this, both required training in the use of ICT.

Keywords. Competences, Information and Communication Technology, digital divide.

I. INTRODUCTION

The challenge of acquiring skills in the use of Information and Communications Technology (ICT) is based on how to disseminate and improve the teaching-learning process involving the most important actors that are teachers and students, in this way the application of educational programs and contents is carried out through the development of skills and abilities in the use of technological tools in university students. Many universities had to change their traditional scheme and appropriate ICT in the virtual classroom, so both teachers and students had as an obligatory element the use of these tools.

In the Mexican context, public unions have adopted the model in the development of competencies that are reflected in the graduation profile, therefore in the face of this pandemic situation, study programs had to be adapted to promote and strengthen skills and abilities, thus it then contemplates the development of competences in teachers-students promoting their integral formation.

The Minerva University Model (MUM) within its transversal axes the Development of Skills in the use

of Technology, Information and Communication (DHTIC). It is promoted for the achievement of the learning objectives, that the academic products of the students are designed through the TIC's, using the computer and disciplinary laboratories, libraries, auditoriums, virtual platforms, BUAP radio, recreation areas. The mastery in the use of ICT is expressed in the so-called generic competences that are applicable to all the educational programs offered by the university. see [2] Therefore the purpose of this work is to describe the perception by teachers-students in relation to the knowledge and skills required in the use of ICT for a model virtual classroom due to the situation of the Covid-19 pandemic and the year that has passed.

II. ICT DEVELOPMENT

It is understood as a definition of competence according to Fuentes Navarro (2007) see [1] as "the set of skills, knowledge, attitudes and values that are needed to perform the effective performance of an occupation" in such a way that know-how and knowledge as such are involved, so that ICT withent on form Ces skills and knowledge applied to the use of information and communication systems, so what apprentices should know and be able to learn in order to be productive, the competences are classified according to the UNESCO(2012) see [4] as a) basic competences for digital literacy, related to ICT in classroom activities, b) application competences, linked to the use of skills and knowledge and c) ethical competences when the person understands and demonstrates the ethical and responsible use of ICT.

From the academic point of view and in the current world it is important to train in the use of ICT which implies the teacher-student participation and through the teacher provide the knowledge, skills for their integral formation, however with the pandemic they were all involved in a virtual world with nothing, little and wide knowledge in ICT and needs had to be met urgently to be able to comply with the programs and competences according to UNESCO, the countries of the Organization for Cooperation and the Economic Development (OECD) of literacy teachers-students and facing them with both social and technological changes, although it is known that the boom in the use of ICT approximately 10 years ago was a knowledge revolution that few were interested in or Accessibility was implemented as part of the curriculum in the face of the imminente need for its use, focusing on it as a transversal axis and despite this the ways of approaching it left much to be desired and would be a great challenge since not everyone is interested, including teachers and that for the

students were not provided with adequate access to ICT.

San Juan (2010), see [3] highlights the importance of analyzing the incursion of ICT in educational environments within the teaching-learning process as an alternative to support student autonomy and foresee ways to face backwardness technological and knowledge, however, most university students give it a personal and entertainment use, with few who incorporate it into their learning or student development. In the latest Tuning for Latin America report, it was determined that the mastery of ICT and its applications from the professional point of view must be one of the competencies of every graduate, so their teaching is relevant. Therefore, the perception of the teachers and students of the Faculty of Stomatology in terms of knowledge and skills of the use of ICT in their virtual classes during the pandemic year will be described.

III. METHODOLOGY

Descriptive, qualitative study to know the degree of teacher-student knowledge and know the training needs for both in the use of ICT, identify knowledge about ICT, assess the degree of teacher-student commitment. Of the selection criteria was the 2018.5 class of semester of the degree in stomatology 291 students to participate in the study, as well as 12 teachers who taught them as a sample. Through a form in Forms in the subject of integral clinic I, the exclusion criterion was not considered those questionnaires incompletos and those who answered more than once.

IV. RESULTS

Of the results obtained in terms of knowledge about TIC, teacher-student training needs, degree of commitment, the following was found.

Knowledge

- a) **Teachers** consider that they handle what is necessary to give the subject online however they require greater training for this type of health emergencies and adapt what is practical to something virtual, it is only theoretical. The use of ICT is only merely administrative requisition and that the teaching-appendige process can not be valued in this way in terms of the subject of Clinica, since what must be evaluated in this is the practical not the theoric and not evaluate the use of ICT.
- b) **Students** do not consider that the knowledge was acquired at the university and that they had enough means for an online class, they answer that they may not require it in the workplace and that they

they require clinical practice rather than the use of ICT since the use of some software will be for the exclusive use of the clinical record. They feel an atmosphere of frustration by not having the practical part for the development of skills and abilities that their career implies more than the use of ICT so they feel insecure about their teaching-learning process in this subject.

Of the training needs

In this section some needs that most could have are considered, both teachers and students mention having a low tendency to master ICT and relate to the management of networks or internet in 60% teachers and 55% students. In this regard, a brief survey was made to assess the degree of need being basic, medium, or high for some items (Table 1)

TABLE OF NEEDS

NEED TRAINING	D LOUD	A LOU	D MEDIA	A MEDIA	D CASUALTY	A LOW
Operational	69%	23%	19%	41%	12%	36%
System	15%	8%	9%	21%	76%	71%
Manage	62%	36%	21%	39%	17%	15%
ment	68%	12%	11%	71%	21%	17%
or	30%	29%	55%	52%	15%	23%
Word	16%	62%	15%	18%	69%	20%
Processor	42%	9%	37%	67%	21%	24%
Spreadsheet	79%	27%	15%	56%	7%	17%
Multimedia	92%	91%	5%	7%	3%	2%
Presentation	85%	72%	13%	16%	2%	12%
Software in the	97%	76%	1%	12%	2%	12%
Using Repositories	99%	98%	1%	2%	0%	0%
area	76%	12%	14%	25%	10%	63%

Source: Own elaboration

- Teachers consider that** they do need to be trained in this sense and that they need training in virtual environments with respect to the use of special platforms in stomatology and that although they exist some, these have a high cost, in addition to requiring more time the planning of the course and selection of didactic strategies in the subject of clinic.
- Students report** that they have the necessary training for the subject in terms of virtual content since it is like theoretical classes without practice, but that there would be a stomatology software if they would require training, not only in what they handle today that is the Smile system.

From here it is considered lack of mastery in ICT of specific software for their career and training needs, considering not being trained for this type of environment today and that it is insufficient time to learn taking in I consider that in stomatology the software is too expensive and has the basic level only of explorers. Possibly the lack of training in digital resources is what would require training especially in the disciplinary area for both cases, handle as mentioned by ICT by the need

of pandemic but they do not like the virtual model because both teachers and students are more practical and report that in other universities there are trainings for the management of software in the area and free access platforms than the same university pays.

Commitment

- Teachers** the lack of commitment on the part of the teacher does not come to lack, there are few cases however as there were few interviewees it would be necessary to carry out the survey to the entire teaching staff to know their commitment, the few respondents refer that they are in all the disposition before this type and for They feel that the level of demand must be higher, they do not notice the active participation of the students; some of the teachers have been trained to use platforms. like Teams, Gsuit, Moodle, Blackboard, Schology to name a few, however the management of them is not as they would like and less in this type of clinical subjects.
- Students** they Refer What There's teachers What No are committed, that the simple fact of leave actividdaes in platform is to teach in line by what about part of they are Feel abandoned and rarely participate, report that they like the subject but it is not the form to the less for they of Teach because

reiterate that it is a clinical subject in which they require practice, they do not demerit that there is one or another teacher who motivates them to work online and it is noticeable that they have been trained and put effort into this teaching process.

The online model allows flexibility for both teacher-student cases so the teacher is the facilitator and guide but despite this the students comment that the discontinuous schedules and attitudes of some teachers do not give them the confidence to clarify their doubts and provide them with support, so they do not feel committed to this type of teaching since they feel that is to be all day in front of a machine and feel tired of so many tasks, the same said the teachers, that online work requires more time of planning and qualification of tasks that many times the students do not deliver due to the lack of a guide or feedback from the teacher who says not to do it because online are more students than in person. Considering that the level of commitment is not optimal for teachers-students and depends on the interest and motivation in the first instance of the teacher so that the student does not feel bored and the subject. see [6] Both teachers and students report that there is a lack of attitude, empathy and commitment in such a way that their performance is not the same as in person and

both sides demand a good try down. Finally there is a marked tendency to choose for the easiest and that is to be mediocre the way of thinking, "I fulfill to fulfill", I flee from the demanding professors, outside I see how I do it, others if they worry about guaranteeing their professional training outside the university taking courses in their area with small groups. (training in schools or private institutes). see[7]

The questions remain in the air: what role does the use of ICT play in the area of stomatology?, herself account with the training Necessary basic Required by teachers and students?, in this sense the university Must put effort a cover those needs we will return to face-to-face classes however this experience where all subjects were online leaves a lot of fabric to cut from and hard work on the future of improving resource conditions human e infrastructure for the development of the agisnaturas online mode. The role of ICT is foundation to the a leave of now y the Has been Must come true Evaluations o apply Instruments more Accurate for adapt the programmes y develop the Competences y Skills of the TIC y achieve them, successfully incorporate in any subject of the area Stomatological In addition What teachers y Students Match in What the use of the Technologies of the information will allow them to organize themselves better, being a complement a their knowledge y development of competences when they graduate and of the importance that as teachers they have today to continue training and meet your needs in this sense of teaching in line, taking into account the advancement of technology and that many already No sound of the Hundred Digital y the Gaps digital have separated them, however teachers time class and recent contract come with more impetus of work y better handling of ICT and Expressed What Should be compulsory one subject of the handling exclusive of ICT under this modality online or virtual that Take out this year as there are few who take the courses of Training Teacher in the area of ICT, but that these courses as they are not exclusive to your area they take them as Update not as specialization digital. see [5] Students are interested in this type of teaching but of form Improved Recognizing the effort of some teachers and failing that of few and recognizing also that they do not know everything and they would also like to be trained at the same time as teachers and affirming that ICTs know them only for their leisure and entertainment y No for the process teaching learning than the ask for the teachers.

V. DISCUSSION

The teacher-student perception of the incorporation of ICT in teaching is for many something direct that impacts on their training especially for the type of clinical subject since they demand the shape

face-to-face and practical as it has been done, although it is True the area of stomatology is characterized by their clinical practices for the development of their skills and Competences Generic What Mark the programmes academics and their integral and ben de auxiliarse of the use of ICT but not one hundred percent since the teachers No are Formed pedagogically in this sense, so you could say that the study did not Sets one evidence egg white of the compliance of Standards in How much a withocimientos, needs y commitment of Both parts. By it it evident the Emphasis that should be considered securing the implement adequate use of ICT in the stomatological area not only in tuition in line but in the handling of software disciplinary, likewise it could be said that the paper relevant of the formation Pedagogical of the teachers in Terms of use of TIC y of the design Instructional respectively y Like this fulfill with the Expectations both the teacher himself and the teacherlumno. Consideranto teachers who have the perception that the Students No he acquired the safety of the knowledge in the tuition in line No being a the height of other private universities, perceive that the student only Has acquired the use of some tools Digital of form Forced a level basic how the same teachers, the cmpromiso of both parties by learn more about virtual environments but ad hoc to your clinical rather than theoretical part and agree with the teaching of some theoretical subjects of first Semesters in line What No amériten the part of laborarorios or practices and recognize the important role in the use of TIC for his formation y herself Support of These for development of their competences since the virtual model has taught them to be more autogestivos in their learning both teachers and students and that vin as an area of oprotunidad more What one weakness this model the Has taught to see opportunities as well as threats in his formation already What the Skills What herself Learned sound Permanent y the Leave one vision of the future in his area and they realize that the Profile of egress requires of those Competences of use of TIC more What for socialize improve their learning. see [6] Teaches them to work in team y be émpatico with his by teacher-teacher. student-student o teacher-student, student-docente receive and ask for help when needed and grant it from in such a way that it complements each other, he taught them to overflow their creativity in activities and promoting solidarity Trying of but Solutions a the incidentals of the technology y in some Occasions improvise. The most teachers have concentrated their efforts on this form of eneñanza Looking estrategias Didactic according to their context, some successfully others barely píloto for improve the learning of the pupil but also sintiendo frustration for not knowing the management to the hundred of some Platforms Institutional by the What the tutoridades he stand in the scope the strengthen a their teachers

and provide them with tools through free diplomas for the use of ICT which is appreciated the total support that the university has given so that the teacher can carry out their activities, but it is also worth mentioning that many times it depends on the attitude and disposition of the teacher capacitate and improve from basic to high levels the theoretical and practical knowledge in the use of ICT.

VI. CONCLUSIONS

The development of competences in the use of ICT in the teachers Students University of the Faculty of Stomatology was and is a complex process that leaves a lot of learning and good or bad experiences but that will surely serve for the continuous improvement of the quality Educational in the ambit of model in line e even the face-to-face since in this sense it will allow to give tracking a the perception What Have teachers y students in the moment that decide to bid any online subject, taking into account the advantages and disadvantages of them, maintaining one balance between knowledge, needs and commitment of teachers-students. Identify the factors of lag in the use of ICT such as the generation gap and digital What herself Presents the road it long but No impossible, to reach the meta and incorporate ICT in the program academician with success.

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