University teaching: creativity and innovation with digital tools

Docencia universitaria: creatividad e innovación conherramientas digitales

Ensino universitário: criatividade e inovação com ferramentas digitais

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Abstract

Introduction: In university teaching it is imperative to appeal to creativity and innovation in the virtual classroom, integrating digital tools that generate added value in the knowledge of students. Objective: Analyze and systematize information on specific applications (Quizlet, MURAL, Kahoot, Flipgrid and Lucidchart) integrated into Microsoft Teams for the use of pedagogical actors through creative and innovative strategies. **Methodology:** The research was developed under the qualitative approach, through the methodology of search, analysis and selection of documents, applying filters according to inclusion and exclusion criteria. To achieve the stated objective, the importance of technology in the preparation of the 2030 generation was addressed; creativity and innovation in virtual classrooms from teaching practice, and applications integrated into Teams that offer didactic possibilities in the university training process in the current context. **Results:** Teachers have limited knowledge of digital tools, in some cases, they are unaware of their existence or technological advances and their potential and; its modes of use in the formative scenario were little explored. It is difficult to keep up with the existing technological alternatives in the educational field. **Conclusions:** The professor must be constantly updated in the use of active methodologies and digital technologies that foster various teaching and learning experiences in response to the skills of the students and the demand for skills in the future of work. In this way, the teacher must focus on overcoming the challenges to provide quality higher education; therefore, train quality professionals.

Key words: Creativity and innovation; Digital tools; Transcendence of technologies.

Resumen

Introducción: En la docencia universitaria resulta imperativo apelar a la creatividad e innovación en el aula virtual, integrando herramientas digitales que generen valor agregado en el conocimiento de los estudiantes. Objetivo: Analizar y sistematizar la información sobre aplicaciones específicas (Quizlet, MURAL, Kahoot, Flipgrid y Lucidchart) integradas a Microsoft Teams para el uso de los actores pedagógicos mediante estrategias creativas e innovadoras. **Metodología:** La investigación fue desarrollada bajo el enfoque cualitativo, mediante la metodología de búsqueda, análisis y selección de documentos, aplicando filtros según criterios de inclusión y exclusión. Para lograr el objetivo planteado, se abordó la trascendencia de la tecnología en la preparación de la generación 2030; la creatividad e innovación en aulas virtuales desde la práctica docente, y las aplicaciones integradas a Teams que ofrecen posibilidades didácticas en el proceso formativo universitario del contexto actual. **Resultados:** Los profesores tienen conocimiento limitado de las herramientas digitales, en algunos casos, desconocen su existencia o los avances tecnológicos y sus potencialidades y sus modos de uso en el escenario formativo fueron poco explorados. Es difícil estar al día con las alternativas tecnológicas existentes en el campo educativo. **Conclusiones:** El catedrático debe estar en constante actualización en el empleo de metodologías activas y tecnologías digitales que propicien diversas experiencias de enseñanza y aprendizaje en respuesta a las habilidades de los estudiantes y la demanda de competencias en el futuro laboral. De esta forma, el maestro debe enfocarse en superar los desafíos/retos para impartir una educación superior de calidad; por ende, formar profesionales de calidad.

Palabras clave: Creatividad e innovación; Herramientas digitales; Trascendencia de tecnologías.

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Resumo

Introdução: No ensino universitário é imperativo apelar à criatividade e inovação na sala de aula virtual, integrando ferramentas digitais que geram valor acrescentado no conhecimento dos estudantes. Objectivo: Analisar e sistematizar informação sobre aplicações específicas (Quizlet, MURAL, Kahoot, Flipgrid e Lucidchart) integradas em equipas Microsoft para a utilização de actores pedagógicos através de estratégias criativas e inovadoras. **Metodologia:** A investigação foi desenvolvida sob a abordagem qualitativa, através da metodologia de pesquisa, análise e selecção de documentos, aplicando filtros de acordo com critérios de inclusão e exclusão. Para alcançar o objectivo proposto, foi abordada a transcendência da tecnologia na preparação da geração 2030; a criatividade e inovação em salas de aula virtuais a partir da prática pedagógica, e as aplicações integradas em Equipas que oferecem possibilidades didácticas no processo de formação universitária no contexto actual. **Resultados:** Os professores têm um conhecimento limitado das ferramentas digitais; em alguns casos, desconhecem a sua existência ou os avanços tecnológicos e o seu potencial; e os seus modos de utilização no cenário de formação foram pouco explorados. É difícil manter-se a par das alternativas tecnológicas existentes no campo educacional. **Conclusões:** O professor deve ser constantemente actualizado na utilização de metodologias activas e tecnologias digitais que favoreçam diversas experiências de ensino e aprendizagem em resposta às competências dos estudantes e à procura de competências no futuro mercado de trabalho. Desta forma, o professor deve concentrar-se na superação dos desafios/desafios de proporcionar um ensino superior de qualidade; portanto, na formação de profissionais de qualidade.

Palavras-chave: Criatividade e inovação; Ferramentas digitais; Transcendência das tecnologias.

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INTRODUCCIÓN

Due to the spread of the COVID-19 pandemic and the containment strategy adopted by many countries, the process of digitization has accelerated in all areas. This period of time has taken the name of the Fourth Industrial Revolution, bringing about a fundamental change in the way of life, work and interpersonal relationships; it is a new chapter in human development enabled by extraordinary technological advances (Castro, 2021).

As a result, many educational institutions have been implementing the hybrid educational model "no longer face-to-face, which was 98% before the pandemic in Latin America and the world" (Ávalos, 2021, n.p.). This new scenario brings with it new situations, such as the use of digital tools as educational strategies to promote and ensure the quality of higher education (Oliva et al., 2020).

In another order, the pandemic has revealed that "in Latin America less than 60% of teachers have technical skills" (Lugo et al., 2020, p.28), few teachers are at the pioneer level with ICT (Chávez, 2021); and that "digital competence is not possessed by a large part of the citizenry" (Silva and Lázaro, 2020, p.45).

In the current context -as a result of the marked generational, social and digital divide in Latin America, and Bolivia in particular- there is still a lack of confidence in the use of technologies in education by faculty (Venegas et al., 2020); there is a lack of implementation of collaborative strategies (Arancibia et al., 2020); and limited knowledge about the breadth of ICTs applied to education or how to incorporate them into the virtual classroom. Undoubtedly, these are circumstances that translate into barriers to achieve experiences of innovation and creativity with technology in higher education. In general terms, "Latin America faces challenges in ICT teacher training" (ECLAC, 2020, p.11).

Other studies show that "the success of the LMS in any institution begins with the acceptance of it by teachers and the way in which technology is integrated into teaching" (Rivero cited in Arancibia et al., 2020, p.91). By way of parenthesis, LMS or Learning Management System means Learning Management System; in simple words, it is the virtual educational platform. In this sense, the need to activate or enhance university virtual classrooms is demanding, and this merits the performance of a more active role of the student and the teacher (López and Azuero, 2020).

In the particular case, being one of the biggest focuses of Microsoft in recent times (Perkins, n.d.), reaching record download (Castillo, 2020) with 75 million daily active users; in the educational field, Microsoft Teams is used by more than 183,000 institutions (Microsoft News, 2020). To date, this virtual platform has achieved unprecedented success, becoming the star tool for collaboration (Softeng, 2021) with its own (within Teams->virtual classroom) and integrated tools -activities and resources. However, from the role of the main actors of the pedagogical act (teachers/discussants) there is still a long way to discover the potential that Teams offers to the academic area.

In this regard, the work of Holzapfel (2020) and Vargas (2020) evaluate a wide range of technologies to determine which have the greatest potential in the short, medium and long term and note the need to integrate different educational strategies and digital tools to develop competencies and skills in teachers and students for the benefit of their academic training. Therefore, teachers must increa-

se the challenges of using applications integrated to Microsoft Teams (those easy to use, intuitive, dynamic and free access) and take advantage of their full potential by integrating their virtual classrooms (Teams->Channels) to promote new forms of intervention and new experiences in teachers and students in these times of pandemic.

In this line, beyond having institutional training, the current challenge is to adapt and keep up to date with the continuous development of various technologies that do not give respite in terms of educational innovation. Exploring, understanding and knowing how to use the digital tools that exist to innovate teaching and diversify learning experiences is a complex task, but not impossible to develop an efficient teaching practice according to the current context. As Rogelio Garza (2021) and Anabella Laya (2021) indicate, teaching professionals, in order to respond to this context, have had to identify what they need to learn and continue learning in the face of growth possibilities.

The above references form the basis for starting this work through the methodology of search, analysis and selection of the most relevant documents, applying filters according to criteria of inclusion (theoretical material related to the topic and that they were recent publications, preferably 2020-2021) and exclusion (they are not open access). And, carefully and meticulously organizing the information according to mind maps to write this article.

In view of this, the following questions arise: What is the importance of technology for educational actors? What assessment is made of creativity and innovation in virtual classrooms from the integration of different digital tools in the teaching task? What digital tools integrated into Microsoft Teams allow enhancing the didactic practice of teachers in the virtual classroom?

En virtud de estas interrogantes, este artículo tiene el objetivo de analizar y sistematizar información sobre las aplicaciones específicas (Quizlet, MURAL, Kahoot, Flip Grid y Lucidchart) integradas a Microsoft Teams para que los actores pedagógicos identifiquen y hagan uso de estas, propiciando estrategias creativas e innovadoras en los procesos de enseñanza y aprendizaje (PEA en adelante) dentro del aula virtual (Equipo). Los criterios a partir de los que se seleccionaron estas herramientas digitales son: la facilidad en el manejo, las ventajas didácticas que tienen y lo más importante, su fácil integración a la plataforma Teams.

Given the current situation, this work can contribute to the appropriation (knowledge, training and application) of teachers of external and integrated applications to Microsoft Teams because it has a presentation of the functionalities of each one and its application in the academic environment in order to determine their collaboration in the role of the teacher and the student.

DEVELOPMENT

Transcendence of technology for educational stakeholders

The current reality demands that the university teaching activity should carry out a process of pedagogical, methodological and technological innovation. Therefore, teaching must go hand in hand with the permanent evolution of technology. Today we have the 5.0 technology. The 5.0 teacher develops under the integration of the institutional environment, teacher-student, family and digitalization in the educational system. As Rivoir (2020) said, the integration of technology is essential in

higher education; currently, it has led to new ways of teaching and learning under new scenarios of interaction to achieve meaningful, relevant and quality learning.

This situation, during the beginning of the pandemic, has implied facing challenges not only in the acquisition and adoption of technologies, but also in the more complex task of using them to facilitate, in an effective way, innovation and educational improvement (Villarreal et al., 2019, p.4); gaining new knowledge and digital competencies.

Along these lines, for authors such as López and Azuero (2020), Holzapfel (2020) and Arancibia et al. (2020), technology plays a transcendent role in the way students learn and in how educators support them. That is, the teacher assumes the ethical and professional responsibility to take advantage of the potential of the technologies available to him/her, as a key element for higher education. Technology allows the teacher to save time, provide specific knowledge, promote inclusion and provide immersive learning experiences. Likewise, technology contributes to the development of 21st century students' skills and prepares the generation of 2030 for a successful personal and professional life.

At the moment, higher education in Bolivia still faces challenges, universities have the great responsibility to prepare students with the respective trained teachers. Therefore, the educator comes into action to guide the learner, mainly by strengthening their digital skills (Viñals and Cuenca cited in Cepeda and Paredes, 2020). However, technical knowledge alone is not enough; teaching in the 21st century requires technopedagogical competencies (Ortiz, 2021). It is clear that change is imperative and the time to start is now.

For this reality, the integration of digital technologies in the PEAs guarantees future scenarios of education under the blended, blended or 100% virtual education model.

Creativity and innovation in the virtual classroom promoted by teaching practice.

"Educating every year is different, it is not only repeating and repeating, not only teachers of education are needed, but also motivating attitudes for students" (Escandón, 2021, n.p.).

In the current context, hybrid and blended education is being implemented; for this, technology, the Internet and the virtual platform become essential tools. The latter houses virtual classrooms, where "transformations, innovations and improvements in educational practices" can be carried out (Tapia, 2020, p.17).

Several studies (Álvarez, 2020; Villarreal et al., 2019; Cepeda and Paredes, 2020) point out that, with technological progress, training is essential in all professional sectors and even more so among teachers. Therefore, pedagogical and technological alternatives are created for teacher training - timely and accurate - aimed at knowing what they are and how to use the ICTs that are booming to promote innovative and creativity-boosting strategies in the classroom.

From the presentations of the Virtual Educa Lisbon-2021 Global Congress, it has been projected that by the year 2025 the transversal competencies most sought after by companies will be creativity and problem solving. Therefore, university teachers must have transversal competencies that allow

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them to make appropriate use of technology, empathy, leadership, innovation, among others (Castellanos, 2021 and Escandón, 2021).

Thus, creativity and innovation in higher education become urgent. That is, to think of new ideas and apply new practices, reflecting that learning in teaching work is permanent and never ends (Dussel, 2020). Regardless of the model of non face-to-face education, creativity and innovation in the virtual classroom are expected to be part of the teaching practice to promote and enhance the acquisition of new knowledge by students.

In short, educators take advantage of the fact that today's students are increasingly aware of the world of technologies -they are intrinsically motivated- to propose different didactics, incorporating digital tools, without fear of the challenge and the unknown (Villarreal et al., 2019).De manera general, es importante la planificación y organización de la práctica docente, considerando la producción de materiales educativos, el planteamiento de actividades y la generación de espacios de interacción a manera de captar la atención de los estudiantes, sorprenderlos, mantenerlos conectados y animarlos a participar. Para ello, es esencial la incorporación de estrategias tecnopedagógicas que promuevan la inclusión en los entornos virtuales de aprendizaje, en los que la tecnología está alcanzando cada vez un mayor uso gracias a su carácter ubicuo y ergonómico (Aznar et al., 2020) para aplicar actividades de formación dinámica, interactiva, de participación activa, creativa e innovadora.

Digital tools integrated to *Microsoft Teams* to enhance teaching practice

The diversity of ways of using technologies in education opens up possibilities to achieve new educational scenarios. However, advances in the identification and analysis of the modes of use of digital technologies in the educational scenario have been little explored (Tapia, 2020) or are limited to the basic management of resources in the virtual classroom. In higher education, different studies (Chávez, 2021; Pérez-López et al.,2021; Venegas et al., 2020 and Mercader and Gairín, 2017) state that the tools of greatest use in teacher practice are: e-mails, virtual platforms, tools for visual presentations and file sharing, leaving a wide range unexplored, unpracticed and unused.

Currently, in the variety of existing and useful technological alternatives in the educational field, it is evident that the list is extensive, but it is necessary to insist on those that offer greater pedagogical possibilities (Arancibia et al., 2020), among many others:

- To plan and organize educational contents in the virtual classroom.to produce multimedia educational materials.

- Generate spaces for interaction and permanent communication.

- To propose activities of inquiry, autonomous work, collaborative work among students, exercises, educational and productive practices of analysis, search, reflection, elaboration, evaluation, among others.

- Stimulate student motivation and participation.

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AMERICANO

It is clear that the selection and application of technologies in education is not only to propose different activities, but also to provide educational materials (multimedia) and generate spaces for academic and social interaction, "this expands the possibilities of how to teach and learn. Given this scenario, it probably makes more and more sense not only to ask how to teach content, but also how to select it" (Suárez et al., 2020, p.14) or to make one's own production.

Fundamentally, the use of digital tools must be aligned with the technological competence and pedagogical competence of the teacher. For Cepeda and Paredes (2020), the former is understood as the ability to select and use a variety of technological tools in a relevant, responsible and efficient manner, understanding the principles that govern them, how to combine them and the licenses that protect them. The second is understood as the ability to use ICTs in the OEPs, recognizing the scope and limitations of incorporating technologies in the comprehensive training of students and in their own professional development.

This implies that the teacher must be continuously updated, not only in the use of tools that can quickly become obsolete and be replaced by new ones, but in active methodologies in digital contexts and the management of digital technologies (AméricaEconomía.com, 2020).

Specifically, the creative and innovative use of digital tools implies their varied integration in the ASP, considering the application of teaching strategies according to the moment of their use (pre-instructional, co-instructional and post-instructional) and according to the cognitive processes.

In line with the above, in particular, some digital tools that are integrated to the Microsoft Teams virtual platform are described, within its education category (in the introduction section it is clarified why this platform is selected). What underlies this section is the degree of collaboration of these tools in university teaching and learning due to their attractive and dynamic characteristics of use within the virtual classroom (Teams).

Quizlet

To use the digital tool Quizlet an account is required (as a teacher or student), by registering with requested data or by logging in with an existing Facebook, Google and Apple profile. The following are essential details of Quizlet:

Within the application it is possible to create flashcards (flahscard) with terms and definitions (as questions and answers) as many as necessary and useful. At the end, the study unit can be shared via email, copy link or shared on Google Calssroom, Remind or Mirosoft Teams. This learning tool works similar to the Glossary activity in the Moodle virtual educational platform.

Tabla 1.
Descripción de la herramienta digital: Quizlet

Presentación	Es una aplicación de estudio online individual o grupal, "tiene la capacidad de crear tarjetas con contenidos educativos" (García, 2018, p.12).
Enlace	http://www.quizlet.com/https://quizlet.com/
Quizlet en la educación	Desde la enseñanza, el docente utiliza Quizlet para elaborar conjuntos de tarjetas o flashcards (escribir palabras y sus definiciones) sobre temáticas de la asignatura; además, permite entrenar y evaluar a los estudiantes en la comprensión de diversos conceptos (Guevara, 2021).

Quizlet en la educación	Desde el aprendizaje, Quizlet se usa para estudiar, practicar, aprender y dominar contenidos temáticos —creados por el estudiante o docente— a través de categorías (estudiar y jugar) mediante una serie de dinámicas (Aprender, Fichas, Escribir, Ortografía, Probar, Gravedad, Combinar, Live).
Limitaciones de Quizlet	En la versión gratuita, el profesor no puede realizar el seguimiento a sus estudiantes, es decir, no verá quién ha realizado la actividad, qué resultado ha sacado y, en qué ha fallado.
Tutorial	https://www.youtube.com/watch?v=86Ey_6Gd2Y4

Fuente: Elaboración propia.

Flipgrid

Access to the Flipgrid digital tool is from a mobile device (Android and iOS) and from a computer. Registration (as a teacher) or quick login using an existing Google or Microsoft account is possible. Here are the essential details of Flipgrid:

Located in Flipgrid you start with the creation of virtual classrooms (grids), then, you proceed to create topics. In the topic you formulate the question for the student to initiate the interaction. In order for students to access the discussion topic, it is not necessary to have a Flipgrid account or to go through a registration process; once they have the registration code, password, a direct invitation via e-mail or the link (direct access), they can access the topic and upload their video as a response. On the other hand, the teacher can integrate the topic in the configuration of a virtual classroom, i.e. embed in a selected platform: Google Classroom or Microsoft Teams.

Tabla 2.
Descripción de la herramienta digital: Flipgrid

Presentación	Es una aplicación online (perteneciente a Microsoft 365) de aprendizaje social que permite la interacción entre actores educativos, utilizando un vídeo vinculado a un tema determinado por el docente dentro de un grid, es decir, al interior del aula virtual; entonces, se crea un grid para cada asignatura. Flipgrid tiene como principal objetivo otorgar protagonismo al estudiante a través del vídeo que va grabando en cumplimiento con la actividad académica solicitada: se empodera la voz del estudiante, siendo más expresivo y creativo (Liarte, 2020 y Microsoft Educator Centre).
Enlace	https://flipgrid.com
Flipgrid en la educación	Desde la enseñanza, con Flipgrid el docente puede: • Generar un proceso de análisis y reflexión de hechos sociales o para el trabajo de temas profundos. • Crear un foro de discusión basado en vídeos (foro audiovisual), lanzando la pregunta generadora de diálogo sobre alguna temática, pudiendo así, valorar las competencias comunicativas del estudiante (Microsoft Educator Centre, s.f.). • Plantear cuestionarios con preguntas para miembros de un grupo (cuadrilla) cerrado. • Plantear la actividad inicial de Presentación personal. • Producir contenidos digitales. • Desde el aprendizaje, el estudiante puede participar activamente, • aportando sus respuestas a la temática del foro, grabando un vídeo de corta duración —desde 15 segundos hasta 5 minutos— (Fernández, 2017) con su explicación e interactuar con sus compañeros; además, puede fortalecer su participación oral. • haciendo una reseña o dando su opinión sobre un libro, una película y otros. • haciendo historias entre todos los estudiantes del curso, continuando donde lo dejó el último estudiante. • realizando su exposición explicativa sobre temáticas de la materia. • produciendo mini programas de televisión. • practicando una lengua extranjera, haciendo énfasis en la pronunciación.
Limitaciones de Flipgrid	En la versión gratuita sólo permite proponer un único tema de discusión; en caso de que se quiera lanzar otra pregunta, el docente debe crear otra clase.
Tutorial	https://www.youtube.com/watch?v=LxVKfn_3ZQ4

Fuente: Elaboración propia.

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The student, before publishing his recorded video (as selfie or videos produced in another application) can customize it, adding emoticons, effects, text, stickers, among others. In a way, this process generates a self-evaluation, a self-critical analysis to polish their contributions (Mosquera, 2020).

Mural

To access the digital tool MURAL, you must register to create an account. The following are the essential details of MURAL:

Within the application there is a collection of frames and templates, you can also "Create new mural", in that white space you drag (from your computer or the web) all necessary multimedia material (text, image, videos, documents in Word, Excel, Power Point, documents hosted in Google Drive, links, mural backgrounds, surfaces, comments and others). Once the work in MURAL is finished, it can be downloaded to the computer (as an image), published on the Web through the link or shared with other users with an e-mail invitation. In this way, everyone can contribute ideas and participate in the mural. It can also be integrated into Microsoft Teams, by pasting its link to the conversation space of a particular channel.

Tabla 3.
Descripción de la herramienta digital: MURAL

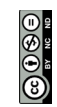|	
Presentación	Es una aplicación online útil y dinámica para elaborar y compartir murales digitales capaces de integrar todo tipo de contenidos multimedia (aulaPlaneta, s.f.), como resultado de un trabajo individual o colaborativo, promoviendo la inspiración, la creatividad y la innovación.
Enlace	https://www.mural.co/
Mural **en la educación**	Desde la enseñanza, MURAL resulta útil al docente para trabajar en todas las asignaturas y todos los niveles educativos, es ideal para plantear trabajos colaborativos, en los que todos puedan interactuar y participar con sus aportes, anotes y organizando sus pensamientos o ideas en el espacio en blanco en la Red, similar a agregar notas adhesivas o los post-it. También se puede plantear actividades como: lluvia de ideas de forma colaborativa, foros de discusión, trabajos en forma de póster; además, puede gestionar las tareas específicas de los estudiantes. Desde el aprendizaje, los estudiantes pueden trabajar murales interactivos de forma colaborativa e innovador. En efecto, MURAL despierta y fomenta la creatividad y productividad de los estudiantes mediante el trabajo colaborativo online, realizando ediciones en la pizarra en tiempo real (Landirez et al., 2018).
Limitaciones de Mural	La versión gratuita solo funciona durante los primeros 30 días y 5 días más de forma adicional.
Tutorial	https://www.youtube.com/watch?v=hB3o94fRO5Y

Fuente: Elaboración propia.

Kahoot

The Kahoot digital tool is accessed from its mobile version (Android and iOS) or web version, by logging in with an existing Google, Microsoft and Apple account. In particular, the teacher requires a Kahoot account to do his or her work. Here are the essential details:

After creating the Kahoot, it can be shared to Facebook, Twitter, Pinterest, Teams or Classroom via link or embedding. When accessing a Kahoot, players (students) must join by entering a PIN code or from the link directly and participate in the form of challenges.

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Tabla 4.

Descripción de la herramienta digital: Kahoot

Presentación	Kahhot es una aplicación de educación social y gamificada, permite la creación de cuestionarios de evaluación a manera de un juego (aprender divirtiéndose), recompensando a quienes progresan en las respuestas con mayor puntuación del ranking; es muy útil para docentes y estudiantes (Ramírez, 2018 y HSEducación, s.f.).
Enlace	https://kahoot.com
Kahoot **en la educación**	Desde la enseñanza, el profesor puede crear concursos de preguntas y respuestas en el aula virtual con el fin de formar, capacitar y brindar interactividad entre los actores educativos, con un material pedagógico variado. Los resultados del concurso pueden ser exportados como archivo Excel (Fernández et al., 2020; Ramírez, 2018). Desde el aprendizaje, el estudiante puede repasar, reforzar o aprender de forma entretenida o gamificada los contenidos, contando con la música de fondo y los colores llamativos; puede crear sus propios cuestionarios de forma individual o para trabajo grupal (Ramírez, 2018).
Limitaciones de Kahoot	En la versión gratuita solo permite el uso de dos tipos de preguntas: opción múltiple y falso/verdadero.
Tutorial	https://blog.orange.es/orange-tv/kahoot-espanol-tutorial/

Fuente: Elaboración propia.

Lucidchart

Students and teachers in higher education can register with their institutional email address to access the Lucidchart digital tool. The following are essential details of the application:

Within Lucidchart you can work with templates or make projects from scratch, there, you simply drag and drop figures onto the canvas. When the project is finished, it integrates with G Suite, Google Drive, Microsoft Teams and more. In particular, Lucidchart can be added as a tab in a Team Channel in Teams or exported in PDF, PNG, JPG and Microsoft Visio format.

Tabla 5.

Descripción de la herramienta digital Lucidchart

Presentación	Lucidchart es un espacio de trabajo visual para crear diagrama de flujos, visualización de datos, mapas conceptuales y colaboración para acelerar el entendimiento e impulsar la innovación (Vargas, 2020), se ejecuta en la nube.
Enlace	https://www.lucidchart.com
Lucidchart **en la educación**	Desde la enseñanza, permite al docente elaborar materiales educativos, condensando la información en estrategias educativas como: mapas conceptuales, mapas mentales, organizadores previos, cuadros sinópticos y mockups. También puede utilizarse esta aplicación para solicitar actividades individuales o grupales a manera de diagramas. Desde el aprendizaje, con Lucidchart los estudiantes pueden liberar su creatividad, creando diagramas de flujos, maquetas, organigramas y otras imágenes en tiempo real. También pueden realizar trabajos colaborativos con chat grupal y @menciones para solicitar la opinión de algún compañero (Lucidchart, s.f.).
Limitaciones de Lucidchart	La versión gratuita se limita a utilizar algunas plantillas.
Tutorial	https://www.youtube.com/watch?v=COROcfOziZk

Fuente: Elaboración propia.

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To integrate or embed these digital tools to Microsoft Teams, one way is to add through a process of identifying credentials (account and password) in Microsoft, which is linked to the Teams account. This process allows sharing in three ways:

a. Share in a Channel: allows you to select a specific channel of the team. Then, the link will have been shared in your chat space of some channel.

b. Create a Task: asks you to fill in the Assign to a class or select a Team, title (by default, the same name as the one used in Quizlet, Flipgrid, Kahoot and others), Task instructions, points and the process ends with the assignment of the Task (which appears in the General Channel of the selected Team).

c. Paste the link in "New conversation" of any channel (the most direct way).

In the current context, it is predicted that education will be one of the occupations that will grow during the next decade; therefore, the importance of the educator's role will continue to increase. Therefore, it is essential to explore each technology, to understand them, to know their usefulness for the development of pedagogical practice, and above all, how to make better use of them. In this journey, the fundamental thing is to overcome the challenges that are being considered towards 2030 in the educational field (Holzapfel, 2020; Castellanos, 2021 and Deloya, 2021).

After identifying that the times and modes are different; if in a classroom the body is the most important thing, in the network it is the materials (Trujillo cited in Sevillano, 2021) produced or configured, the approach of academic activities, the generation of spaces for interaction through digital tools and feedback.

In short, in order to educate people with quality, the challenge is to promote innovation from teaching to learning. Today, more than ever before, teachers' support is needed to generate real learning and transformations in students. Therefore, teachers face the challenge of being prepared to attract students to learn in the classroom, enhance their interactivity, keep them active in class, achieve collaborative learning and increase the level of participation (Andrade-Vargas et al., 2020). In short, flexible and resilient teachers are needed for the VUCA (volatile, uncertain, complex and ambiguous) world. Teachers oriented to the education of the future, "technology-driven, adaptable and innovative, with international quality" (Avalos, 2021, n.p.).

CONCLUSIONS

In today's reality, it is imperative for university teaching to understand that the constant advance of technologies will always set challenges and rhythms for their use in the virtual classroom. However, the need, willingness and predisposition to enhance the educational task will be decisive to overcome the limitations and be prepared for this new working world.

In addition to the above, the teacher can choose the digital tools described above and many others, surely. However, it must be considered what skills, what content and what learning is intended to develop in students. For this, it is important to take into account the teaching strategies to be applied according to the time of their use and according to the cognitive processes.

Specifically, MURAL and Lucidchart are applicable in teaching strategies: descriptive illustrations for their work with different multimedia content; in the pre-instructional strategy with brainstorming as a way to activate and reflect on previous knowledge on a given topic; in the strategy of organizing the

information to be learned through mind maps or textual structures; and in the metacognitive strategy, breaking down the task into steps. Quizlet, Kahoot and Flipgrid are applicable in the teaching strategy: questions inserted as a way to retain and obtain relevant information. In particular, Flipgrid corresponds to the discursive track type teaching strategy due to the video recording.

Undoubtedly, the importance of technology is evident for both teachers and students because the teacher can perform in new scenarios and students can perform activities such as: reading, writing, analyzing, searching, reflecting, elaborating, evaluating, among others, individually or collectively, being digital natives.

Finally, hybrid education or virtual education is here to stay. In reality, it is the best opportunity to get to know them, master them and even transform them during pedagogical practice. Therefore, incorporating digital tools in the development of OEPs enables creativity and innovation in teaching practice and in the acquisition of significant learning by students.

Therefore, it is important that all universities in Bolivia take on the challenge of promoting and training teachers in the use of digital tools that generate added value in the knowledge of students, thus minimizing barriers. In this scenario, students are the most benefited, by acquiring greater technological skills, being able - in the future - to meet the competencies and skills that are needed or demanded to face the labor market.

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