Call for Articles

The IEEE Technical Committee on Learning Technology (TCLT) has been founded on the premise that emerging technology has the potential to dramatically improve learning. The purpose of this technical committee is to contribute to the field of Learning Technology and to serve the needs of professionals working in this field.

The Bulletin of the Technical Committee on Learning Technology aims to report (1) the up-to-date outcome of the emerging learning technologies, (2) the review of learning technology related books, instruments or reports, (3) the collaboration opportunities of work-in-progress research ideas and projects, (4) the current development status of learning technology in the developing countries, and (5) the announcements of the upcoming activities that the learning technology community may interest. It would also serve as a channel to keep everyone aware of Technical Committee's activities.

The bulletin is calling for articles in the following sections:
- **Emerging Learning Technologies:** an article with up to 8 pages the research outcome of learning technologies, including systems, tools, apps, etc., no theoretical or concept only research would be accepted.
- **Equity, Diversity & Inclusion (EDI):** an article with up to 4 pages to discuss the issues for minorities in STEM education and how the community deal with the matter.
- **Book & Report Reviews:** an article with up to 4 pages.
- **Collaboration Opportunities:** an article with up to 4 pages to talk about the research progress and stage outcome as well as the aspects and needs of looking for collaborations.
- **Report from Developing Countries:** an article with up to 6 pages to describe the current research progress/difficulties/needs/limitations of the learning technology in the developing countries.
- **Event Info & Call for Event Host:** 1 page.

The bulletin articles have to give readers clear idea and vision of the advanced learning technologies with rich and proper figures, screenshots, and diagrams.

For preparing your manuscript, please follow the IEEE guidelines and use the template at https://ieeeauthor.wpengine.com/wp-content/uploads/Transactions-brief-short-or-communications-article-template.doc. Please submit your manuscript to tclt-bulletin@ieee.org in Word format with the subject title "Bulletin Submission for [*section*]" (*section* indicates which section you would like to submit). All figures should be in high resolution and embedded in the main text.

The bulletin is included in Emerging Sources Citation Index (ESCI). The first decision for the submission is in 24 days.

Editorial

Maiga Chang (iD), Rita Kuo (iD), Jun Chen Hsieh (iD), Ahmed Tlili (iD)

The 22nd IEEE International Conference on Advance Learning Technologies (ICALT 2022) was successfully hosted in Bucharest, Romania in July, 2022. This is the first time ICALT organized in hybrid mode. There are 20 in-person and 99 online participants this year. In-person participants were excited to have face-to-face interactions with others once again after the COVID lockdown; online participants were also enjoying the online sessions include keynotes, panel, and presentations without the long-distance travel accompanying the travel restrictions due to the pandemic. The IEEE Technical Community on Learning Technology is looking forward to having more in-person participants in ICALT 2023 at Orem, Utah, United States on July 10 to 13 next year.

There are three articles published in this issue after the rigorous review process. One article is the letter from the 2013 IEEE TCLT Early Career Award Winner; the other two articles include one in Report from Developing Countries section and one in Even Info & Call for Event Host section. The first article is written by Rustam Shadiev, the winner of IEEE TCLT Early Career Award in 2013. He discussed his research field and how he got involved in it at an early age. He also provided suggestions to young researchers on how to get involved in research.

The second article in the Report from Developing Countries section is "Measuring faculty perceptions of EvalTools LMS: A case study of Islamic University of Madinah" written by Rafi Ahmad Khan and Arshad Ali. The article shows that higher education in Saudi Arabia is growing in recent years. As Learning Management System (LMS) becomes an important tool in the higher education system, this study investigates faculty perceptions of the usability toward the LMS. The results show that although some faculty have lower perception on the ease of use, most of them still believe it could improve the efficiency, effectiveness, and performance in higher education.

The last article "The 2nd International Workshop on Metaverse and Artificial Companions in Education and Society (MetaACES 2022Nov) (28 or 29 Nov 2022)" is in the Event Info & Call for Event Host section written by Siu-Cheung Kong and Yunsi Ma. The article introduces the 2nd International Workshop on Metaverse and Artificial Companions in Education and Society hosted in ICCE 2022. The 2nd MetaACES aims to explore how the metaverse can be applied in education and society. We encourage the community who are interested in the metaverse application in education to exchange research agendas and innovative ideas in the workshop.

The current submission statistics in the Bulletin of TCLT show that authors receive the first decision notification in average 23.76 days, and for the accepted articles the authors get the acceptance notification in average 49.92 days. The accepted articles are published online on average 92.52 days after they were submitted.

The IEEE Technical Community on Learning Technology is holding an election for chair which runs for 2 years from August 1, 2023 to July 31, 2025. If you are interested in serving in the community, please check the information at https://tc.computer.org/tclt/call4nomination-tclt-chair-election/.

Letter from the 2013 IEEE TCLT Early Career Award Winner

Rustam Shadiev, *Senior Member, IEEE*

I am Dr. Rustam Shadiev, Professor at the School of Education Science of Nanjing Normal University, China. I am also a Distinguished professor of Jiangsu province, China. In addition, I am a Fellow of the British Computer Society and a Senior Member of the Institute of Electrical and Electronics Engineer. The Elsevier included my name in the list of Most Cited Chinese Researchers in the field of Education in 2020 and 2021. My research interest includes advanced learning technologies to support language learning and cross-cultural education.

I received "Early Career Researcher Award in Learning Technologies" in 2013 for my contribution to the field of learning technologies. This is because of my research on Effects of Applying Speech-to-Text Recognition for One-way Lectures and Group Learning Activities on Learning Performance in Online Synchronous Cyber Classroom.

A survey of related studies on this topic showed several challenges in online synchronous teaching and learning environments. Some of them were the presence of poor audio quality due to unstable internet connection, students were distracted during online classes or they just missed their learning activities. These issues could hinder students' understanding of lecture content delivered online or negatively affects discussion flow during teaching and learning activities. To address these problems, the STR technology was applied. That is, text streams synchronously transcribed from speech input by Speech-to-Text Recognition (STR) technology were provided for students to read content of lectures and learning activities during and after their classes.

The STR technology was applied in an effort to improve learning performance and communication in an online synchronous cyber classroom environment. Two experiments were carried out to investigate the effectiveness of applying STR technology on learning performance and students' perceptions and behavioral intentions toward the STR. In the first experiment the STR technology was applied for one-way lectures and in the second experiment the STR technology was applied for students' individual oral presentations and group discussions. Statistical results of the first experiment showed moderate improvement in the performance of the experimental groups (the treatment group who study with the STR) over the control group (the no-treatment group who study without the STR) on two sessions of writing essays. However, once students in the experimental group became familiar with the STR-technology and used it as the learning tool, they significantly outperformed the control group students in post-test results. Statistical results of the second experiment revealed that the experimental group performed significantly better compared to the control group in two sessions of writing essays, intermediate test, and post-test. These results suggest that the STR technology was beneficial for students' learning in an online synchronous cyber classroom environment so as to improve their overall learning performance.

Interviews with students of both experiments revealed that students could take advantage of STR-generated texts during and after teaching and learning activities. Students emphasized that they could read the STR-generated texts and listen to a speaker simultaneously to enhance their comprehension. In addition, students used the STR-generated text during online teaching and learning activities to make up missed information, clarify, and enhance their understanding of content of a speech in an online synchronous learning environment. Furthermore, students mentioned that STR-generated texts were useful in simultaneous note-taking; students took notes and reviewed them later to get a deeper understanding of content of a speech. Some students also mentioned that after online teaching and learning activities they preferred to study STR-texts to make up the classes they missed, while some students studied texts to recall and get a better understanding of content of teaching and learning activities.

Finally, the survey results of both experiments showed that most experimental students perceived that the STR technology was easy to use and useful for learning. Most students of both experiments also expressed that they were highly motivated to use the STR technology as the learning tool in the future.

Based on the results, we recommend that instructors and students apply the STR technology in an online synchronous cyber classroom and students take advantage of STR-generated text during and after teaching and learning activities to enhance their understanding of learning content. Educators need to design the STR technology-based teaching and learning activities in a way that encourage students to find its strengths and limitations and then fully utilize the STR-generated texts for learning. It is recommended to train the STR technology prior to its application to obtain a reasonable technological accuracy rate of more than < 85 percent.

Some new research directions for future studies were also proposed. One direction is to investigate the pedagogical potential of the STR technology application for other learning environments (e.g. traditional or virtual classroom). Another direction is to explore the extension of the STR technology with similar innovations (e.g. Text to Speech Recognition) in order to enhance learning.

As a final note, I would encourage young researchers use creativity in their research. Creativity is important in research as we need to find solutions to a research problem that are different from those proposed by other scholars. Therefore, try to identify an important research issue and try to address it in creative and unique way.

Dr. Rustam Shadiev is a professor in the School of Education Science, Nanjing Normal University (China) and a distinguished professor of Jiangsu province (China). He is also a Fellow of the British Computer Society (BCS) and a Senior Member of the Institute of Electrical and Electronics Engineer (IEEE). Rustam Shadiev was selected as the Most Cited Chinese Researchers in the field of Education by the Elsevier in 2020 and 2021. His research interest includes advanced learning technologies to support language learning and cross-cultural education.

Measuring faculty perceptions of EvalTools LMS: A case study of Islamic University of Madinah

Rafi Ahmad Khan[iD] and Arshad Ali[iD]

Abstract— There are many Learning Management Systems (LMS) tools like Blackboard, WebCT, EvalTool, Moodle, etc. to support teaching and learning that have produced remarkable results for teachers, students and higher education institutions. There is a remarkable increase in the use of these LMS tools by universities around the globe. Islamic University of Medina (IUM), Saudi Arabia uses two LMS, namely Blackboard and EvalTools, as an online instructional environment. This research was conducted in session 2019-20 to examine the perception of teachers about the effect of EvalTools LMS on teaching and learning in IUM. A five-point Likert scale survey questionnaire that consisted of 30 items was developed to measure the perception of teachers through relevant variables such as efficiency, effectiveness, usage and performance. The findings reveal that most teachers have a positive perception that EvalTools LMS increases the efficiency, effectiveness and performance of the users, while a slight majority of teachers have a negative perception about the ease of usage of this tool.

Index Terms—Learning Management System (LMS), eLearning, EvalTools, social media.

I. INTRODUCTION

In this rapidly changing world driven by globalization, knowledge economy and the advancement of ICT, there is need to produce qualified and skilled professionals. Now, employers hire university graduates who not only have knowledge, but also have the skills to be productive and effective in the workplace. To meet these challenges, there is a shift in educational strategy from the traditional teacher-centered model that stresses on lectures, tests and other methods of assessments towards the technology-supported learning that emphasizes what students know and can do. A Learning Management System (LMS) is one such technology that supports teaching, learning and assessment.

LMS evolved from the Course Management Systems (CMS) that were introduced in the 1990s. The focus of the CMS was on the contents of the courses and their delivery, while the focus of the LMS is on the requirements of the students as well as that of the teachers [1]. These systems support e-learning through the development and access of course content to users [2]. A number of educational institutions across the globe have developed LMSs to let students and professors collaborate beyond the confines of a traditional classroom [3]. They have been shown to be an excellent method for encouraging students' commitment to educational subjects such as sustainability [4]. Nowadays, LMSs are commonly used in the education sector to create, access, manage, distribute, and retrieve course-related materials. They facilitate novel and innovative methods of teaching and learning by providing various tools for interactive learning; for

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instance, quizzes, assignment, online assessments, discussions, surveys, chat rooms, blogs, and wikis [5],[6]. The majority of students pursuing their degrees through full-time on-campus or distance mode have found collaborative tools of LMS such as chats, wikis and discussion boards as valuable in sharing their learning experiences, especially during group tasks [7],[8]. Now, an increased number of teachers and students are adapting to the online teaching and learning environment [9].

II. RESEARCH DESIGN AND METHODOLOGY

The number of HEIs in Saudi Arabia has grown tremendously in recent years. There are now 29 public universities and 11 private universities in the Kingdom, along with hundreds of community colleges and a rapidly growing number of technical and vocational training schools. Most of these universities and colleges use Blackboard and Moodle as LMS as a supporting aid for teaching and learning.

Islamic University of Medina (IUM) is using two LMS, namely Blackboard and EvalTools as online instructional environments. There are two faculties, namely the Faculty of Engineering (FE) and the Faculty of Computer & Information Systems (FCIS) at IUM that uses only EvalTools as LMS. Previous research shows that work has been conducted on the other LMSs like Moodle and Blackboard to find the impact of these LMS tools on teaching and learning, but no such study has been conducted on the Evaltools LMS. Therefore, the authors found it imperative to contribute to the present body of knowledge by conducting a study to examine the perception of teachers about the effect of the EvalTools LMS on teaching and learning in IUM. Since, EvalTools LMS is one of the recent LMS being increasingly adopted by educational institutions globally, therefore, this study attempts to explore the possibilities of adopting this LMS in Saudi Arabia for effective and efficient teaching, learning and evaluation processes with the help of technology.

EvalTools is an LMS platform developed by MAKTEAM Software, not just for day-to-day classroom activities, but also for assessing learning and teaching delivery in the context of satisfying standards/program accreditation. It is a complete and all-encompassing solution for all day-to-day learning, teaching delivery, and certification preparation. EvalTools was designed and developed in accordance with ABET (Accreditation Board for Engineering and Technology) standards to provide a tool for gathering and evaluating data regarding a program, students' performance, and learning accomplishments. Furthermore, EvalTools® is useful in offering a method to ease the process of evaluating the assessment findings, as well as identifying the program's strengths and weaknesses prior to ABET evaluation [14]. It provides an online program assessment toolset that replaces Blackboard functionality for daily classroom lessons and assignment activities, as well as tracking key assignments that are automatically ported into the appropriate Faculty Course Assessment Report (FCAR) document for evaluation purposes [15]. EvalTools® focuses on assessing the efficacy of teaching and learning by allowing faculty to access their teaching/student learning in a formative or summative way utilizing the FCAR approach. Faculty can choose assignments that are linked to a Course Outcome

(CO), a Performance Indicator (PI), or a Student Outcome (SO) [22].

The following are some of the most important elements of EvalTools in terms of outcomes assessment [14]:

- Lessons-a collection of lectures and lessons.
- Assignments-keeping track of assignments to ensure they are achieving course objectives.
- Grade book-keep track of your grades.
- Faculty Course Assessment Report (FCAR).
- Syllabus of the course-a framework for documenting learning activities.
- Rubric-easy to create a rubric for assessing meeting outcomes in a consistent manner.
- A unified storehouse for all artifacts acquired in class — the objective evidence folder.
- Course exit survey-monitoring the results of the end-of-semester course survey in terms of satisfying course objectives.
- Senior departure surveys, alumni surveys, and employer surveys – all configurable to meet the requirements of the university.
- Matrix of curriculum outcomes–allows for quick assessment of program strengths and deficiencies.

This research focuses on studying the perspective of teachers regarding the implementation of EvalTools LMS as they are the main implementors of this tool. However, this may be one of the limitations of this study and can be followed by further studies that will study the perspective of both teachers and students.

The data for this study were collected through a structured questionnaire formulated in English from the teachers of these two faculties. The total population of the teachers in these two faculties was 67 and the sample size was calculated with the help of a sampling calculator by SurveyMonkey [16]. The sampling calculator gave a sample size of 40 with a confidence level of 95 % with a 10% margin of error by taking 67 as the total population. Therefore, in this study, 40 faculty members were chosen as the sample size out of a total population of 67. A simple random sampling technique was used to select the desired number of respondents. These instructors were utilizing the EvalTools LMS for the first time, and had never used any other LMS before.

The items used in the questionnaire for measuring various dimensions were extracted from the literature [17],[18]. The questionnaire had 30 items and was based on the 5-point Likert Scale, with responses ranging from "Strongly agree" to "Strongly disagree".

Reliability of the questionnaire was measured through the Cronbach alpha test, which is the most common reliability test to measure internal consistency, i.e., reliability of the questionnaire [19]. The result of the test is given in Table I, which is more than 0.9, reflecting the high reliability of the measuring instrument.

Moreover, it shows a high level of internal consistency with respect to the specific sample.

TABLE I
RELIABILITY STATISTICS

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
.920	.921	30

To check sample adequacy, Kaiser-Meyer-Olkin (KMO) and Barlett's test were performed. Table II shows the results where sample adequacy KMO for the overall construct was 0.440 and Barlett's test of sphericity was significant at 0.000, which indicated the suitability of data for factor analysis [20]. To identify the relevant variables from the questionnaire; Exploratory Factor Analysis (EFA) was performed.

TABLE II
KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.440
Bartlett's Test of Sphericity	Approx. Chi-Square	1012.56
	df	435
	Sig.	.000

Table III presents the component matrix generated by EFA. The component matrix has four constructs/variables which were named as Efficiency, Effectiveness, Performance, and Usage [21].

As soon as the data was collected, it was carried out for analysis with the help of SPSS 16 and MS Excel 2016 software packages.

TABLE III
COMPONENT MATRIX

	1	2	3	4
Q1	.687	.055	.765	.170
Q2	.568	-.180	.652	.268
Q3	.552	-.509	.333	-.331
Q4	.271	-.620	.606	-.140
Q5	.592	-.405	.387	.024
Q6	.424	.223	.544	-.387
Q7	.592	.382	.659	-.473
Q8	.609	-.427	.155	-.343
Q9	.592	.571	.725	-.289
Q10	.332	.715	-.689	-.135
Q11	.571	.665	-.614	-.124
Q12	.588	.564	.612	-.348
Q13	.289	.060	.586	-.227
Q14	.131	-.475	.861	.356
Q15	.497	-.288	.628	.258
Q16	.426	.364	.780	.230
Q17	.427	.595	.634	.355
Q18	.470	.490	.073	.566
Q19	.247	.534	-.090	.032
Q20	.311	.648	-.046	.416
Q21	.322	.643	-.157	.009
Q22	.481	-.279	.532	-.171
Q23	.248	.439	.740	.111
Q24	.257	.039	-.058	.664
Q25	.635	.217	-.032	.700
Q26	.315	-.238	-.249	.505
Q27	.633	-.147	-.173	.756
Q28	.737	.017	-.251	.133
Q29	.410	-.070	.643	.151
Q30	-.149	.068	.746	.214

III. RESULTS

The results of this study are discussed below based on constructs such as Efficiency, Performance, Usage, and Effectiveness.

A. Efficiency

Efficiency is the ratio of the valuable work performed by a machine or its ability to avoid wasting materials, energy, efforts, money, and time in doing something or in producing a desired result. The effect of EvalTools on the efficiency of users was measured by the following four items:

Q3 The Course Info setup section of EvalTools (Course description, course outcomes, Course Outlines, Assessment Methods, etc.) is helpful to students.

Q5 The Assignment section of EvalTools (Home Work, Quizzes, Examinations, etc.) is helpful to me and my students.

Q8 The Grade-book section of EvalTools is helpful in managing the results of students.

Q28 Instructors must spend less time managing their courses with EvalTools.

Fig. 1 gives the response to these items. Most teachers responded highly to Q3 with a mean of 3.93; Q5 with a mean of 3.95 and Q8 with 3.95. In Q28, the mean of 2.85 indicates that the majority of teachers do not believe that using EvalTools has reduced the amount of time they spend maintaining their courses. Overall, results indicate that the majority of teachers are positive towards most of the items; hence efficiency.

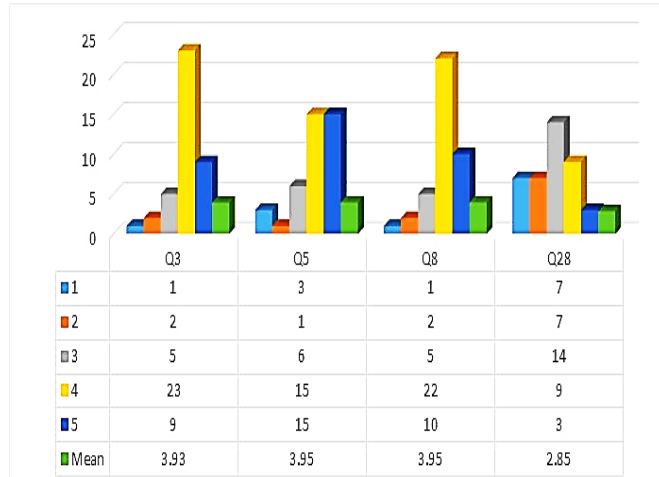|	Q3	Q5	Q8	Q28
■1	1	3	1	7
■2	2	1	2	7
■3	5	6	5	14
■4	23	15	22	9
■5	9	15	10	3
■Mean	3.93	3.95	3.95	2.85

Fig. 1. Responses for Efficiency.

Total responses for the Efficiency which were measured through four items i.e., Q3, Q5, Q8 and Q28 were 160 as shown in Fig. 2. Out of these 162 responses, 12 (7%) responses were for total disagree option, 12 (7%) responses were for disagree option, 30 responses (19%) responses were neutral, 69 (43%) responses were for agree option, 37 (23%) responses were for total agree option. This means that 66% of teachers have a positive perception that EvalTools increases efficiency while 24% have a negative perception, other 19% remain neutral. Thus, the majority (66%) of teachers, agree that EvalTools increases the efficiency of users.
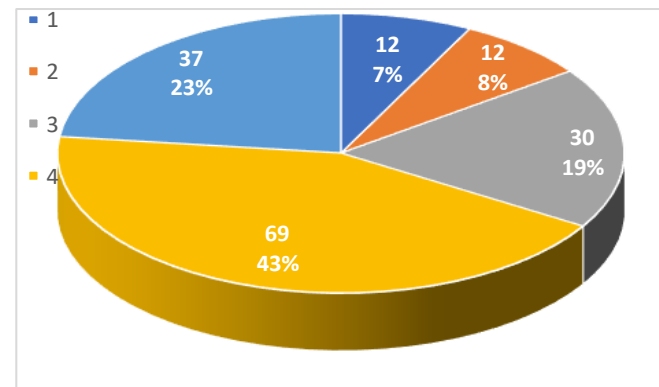

Fig. 2. Total responses for Efficiency.

B. Performance

Performance is how well a person, machine, etc. does a piece of work or an activity. The perception of teachers that the performance of users is enhanced by using EvalTools was measured by the following three items:

Q10 I am able to check the performance of my students by using

various tools like FCAR etc. in EvalTools throughout the semester.

Q11 Various tools like FCAR, Grade-book, etc. helped me to improve my teaching.

Q19 Quality of teaching improved using the EvalTools software.

Q20 Quality of Learning improved using the EvalTools software.

Q21 Do you think that use of EvalTools has resulted in students getting better grades (Marks) in their courses?

Fig. 3 shows the response to these items. Most teachers responded highly for the Q10 with a mean of 3.45; Q11 with a mean of 3.07; Q20 with a mean of 2.95 and Q21 with 2.67. This indicates that the majority of teachers are positive towards these items hence Performance.

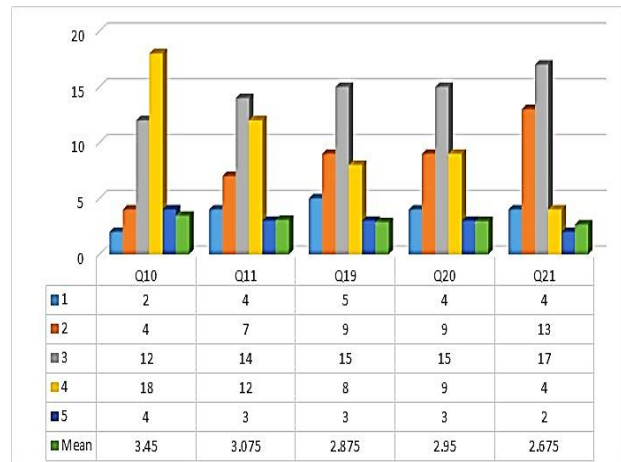|	Q10	Q11	Q19	Q20	Q21
■1	2	4	5	4	4
■2	4	7	9	9	13
■3	12	14	15	15	17
■4	18	12	8	9	4
■5	4	3	3	3	2
■Mean	3.45	3.075	2.875	2.95	2.675

Fig. 3. Responses for Performance.

Total responses for the Performance, which was measured through five items i.e., Q10, Q11, Q19, Q20 and Q21 were 200 as shown in Fig. 4. Out of these responses 19 (9%) responses were for total disagree option, 42 (21%) responses were for disagree option, 73 (36%) responses were neutral, 51 (26%) responses were for agree option, 15 (8%) responses were for strongly agree option. That means that 34% of teachers agree that EvalTools increases performance, while 30% have a negative perception, other 36% remained neutral. Although, the results are slightly positive, an almost equal number of teachers don't agree that use of EvalTools enhances performance.
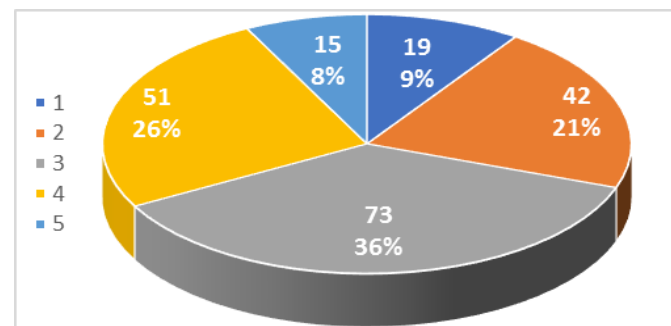

Fig. 4. Total responses for Performance.

C. Usage

The Usage construct was used to study the perception of teachers about the ease of use and usability of EvalTools and this construct was measured through the following fourteen items:

Q1 EvalTools is easy to use.

Q2 I have enough information about how to use EvalTools software.

Q4   I used the Lessons section of EvalTools to upload the course material like PowerPoints, videos, etc.

Q6   Students submit their assignments in my courses through the Online Assignment section of EvalTools.

Q7   I send emails to my students through the Class Email tool provided in the EvalTool.

Q9   The Attendance/ Roster section of EvalTools is used by the instructor to take care of the attendance of students.

Q12 I use the discussion forum in the Class Tools section of EvalTools to communicate with other students and the instructor.

Q13 I used all the tools available in the EvalTools.

Q14 EvalTools is compatible with common browsers such as Firefox, Chrome, Internet Explorer, etc.

Q15 EvalTools is compatible with common hardware (pcs, mobile devices, tablets, Laptops, etc.).

Q16 EvalTools is designed in such a way that when a user makes an error, the EvalTools respond with an appropriate error message.

Q17 EvalTools is flexible to enable users to adjust settings to suit themselves, i.e., to customize the interface.

Q22 Do you use survey tool of EvalTools to give feedback about the course.

Q23 Do you think that EvalTools should have alternative Language Support such as Arabic Language Option?

Q29 EvalTools should be used in all universities.

Q30 It should be replaced with some other Learning Management Tool such as Blackboard, Moodle.

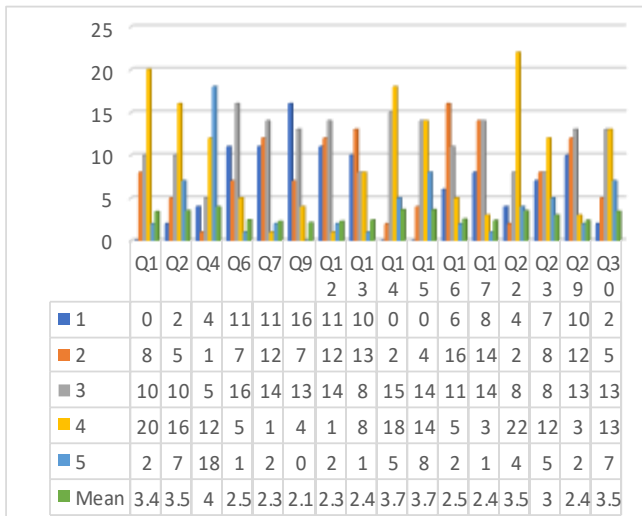|	Q1	Q2	Q4	Q6	Q7	Q9	Q12	Q13	Q14	Q15	Q16	Q17	Q22	Q23	Q29	Q30
1	0	2	4	11	11	16	11	10	0	0	6	8	4	7	10	2
2	8	5	1	7	12	7	12	13	2	4	16	14	2	8	12	5
3	10	10	5	16	14	13	14	8	15	14	11	14	8	8	13	13
4	20	16	12	5	1	4	1	8	18	14	5	3	22	12	3	13
5	2	7	18	1	2	0	2	1	5	8	2	1	4	5	2	7
Mean	3.4	3.5	4	2.5	2.3	2.1	2.3	2.4	3.7	3.7	2.5	2.4	3.5	3	2.4	3.5

Fig. 5. Responses for usage.

Fig. 5 shows the response of these items. Most of the teachers responded highly to Q4 with a mean of 3.97, Q1, Q2, Q14, Q15, QQ22, Q23 and Q30 have mean greater than 3. It is important to note that Q6, Q7, Q9, Q12, Q13, Q17, Q29 have mean less than 2.5. Overall, these responses reveal that the slight majority of teachers have negative perception towards these items hence Usage.

Total responses for the Usage which was measured through sixteen items were 640 as shown in Fig. 6. Out of these responses, 102 (16%) responses were for total disagree option, 128 (20%) responses were for disagree option, 186 (29%) responses were neutral, 157 (25%) responses were for agree option, 67 (10%) responses were for total agree option.
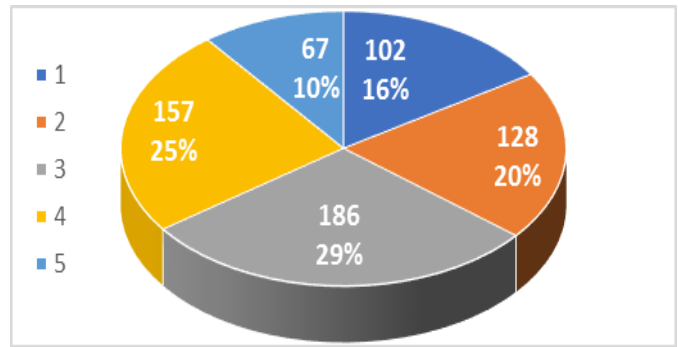

Fig. 6. Total responses for Usage.

It means that 35% of teachers have a positive perception towards ease of use and usability of EvalTools while 36% have negative perception, other 29% remain neutral. Thus, a slight majority of teachers have shown a negative perception of the ease of use and usability of EvalTools.

D. Effectiveness

Effectiveness is the capability of producing a desired result or the ability to produce desired output. Effectiveness variable/construct was used to study the perception of teachers whether EvalTools is effective or not and this construct was measured through the following five items:

Q18 EvalTools has a help facility and other documentation to support users' needs.

Q24 EvalTools help instructors perform the necessary activities of the class faster.

Q25 I can easily find the necessary information on EvalTools.

Q26 To manage courses through EvalTool is easy and quick.

Q27 EvalTool is helpful in meeting the course outcomes.

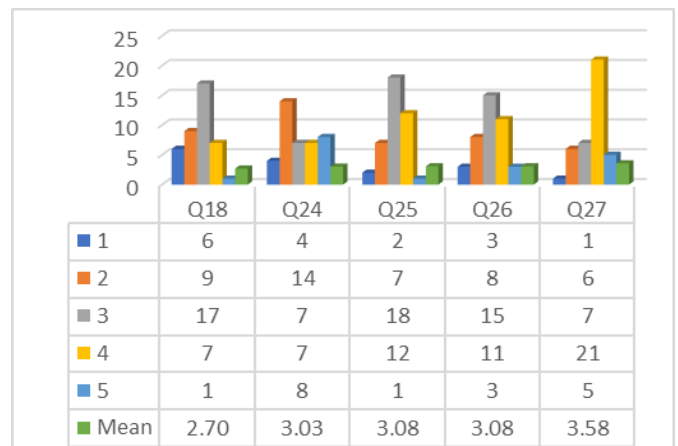|	Q18	Q24	Q25	Q26	Q27
1	6	4	2	3	1
2	9	14	7	8	6
3	17	7	18	15	7
4	7	7	12	11	21
5	1	8	1	3	5
Mean	2.70	3.03	3.08	3.08	3.58

Fig. 7. Responses for Effectiveness.

Fig. 7 shows the response of these items. Most of the teachers responded highly for the Q27 with a mean of 3.58 and Q24, Q25, Q26 with a mean of nearly 3 while Q18 has mean of 2.70. This indicates that the majority of teachers have a positive perception towards these items, hence Effectiveness of EvalTools.
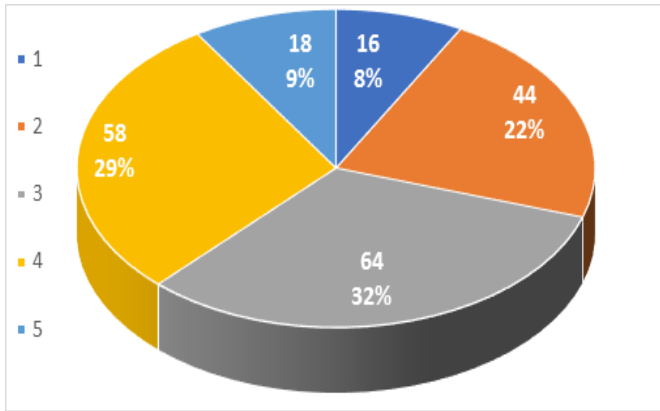
Fig. 8. Total responses for Effectiveness.

Total responses for the Effectiveness which were measured through five items i.e., Q18, Q24, Q25, Q26 and Q27 were 200 as shown in Fig. 8. Out of these responses, 16 (8%) responses were for total disagree option, 44 (22%) responses were for disagree option, 64 responses (32%) responses were neutral, 58 (29%) responses were for agree option, 18 (9%) responses were for total agree option. This means that 38% of teachers have a positive perception towards effectiveness while 30% have a negative perception, other 32% remain neutral. Thus, majority of teachers have shown a positive perception of the effectiveness of EvalTools.

IV. DISCUSSION

With the increase in internet accessibility, social media has emerged as a new means of communication for people all over the world.

Social media platforms such as Facebook, Twitter, Instagram, LinkedIn, YouTube, and others have become the most popular platforms for supporting online learning, particularly in higher education. As a result of the widespread usage of social networking sites in all fields, their application in the field of education is rising. These sites play a wide range of roles in higher education. Students may communicate with their classmates, exchange files and papers, and professors can post videos and documents to their blogs and wikis. Teachers and students use social media to keep up with the latest news, technological advancements, communicate with friends, and share their thoughts, information, ideas, and media.

Some researchers strongly advise adopting these social media sites as an alternative to LMS [10], [11]. However, the biggest disadvantage of social media is that it contains several distractions from studying, such as games, video clips, horoscopes, news, advertising, and so on. Teachers have little influence over social networks, since they are run outside of academic institutions. Furthermore, anybody may create a fake profile on these social media platforms, making it impossible to identify students in a huge social network group [12].

Although social networks have taken over student-to-student contact on LMS, educators and learners still see the benefits of LMS in facilitating student-teacher connection, particularly in terms of assessment and assistance [13]. With the ability to manage content, development, and delivery, training management, tracking, notifications, reporting, scheduling, attendance tracking, and exam management, LMS is not only the foundation of teaching and learning initiatives, but it is also a necessity for efficient teaching and learning management.

Keeping in view the importance of LMS as a teaching and learning aid, this study set out to investigate how faculty perceive the use of EvalTools LMS. The major findings from the results shown in Table-

IV reveal that Efficiency tops the rank with a mean of 3.67, followed by Effectiveness, which has a mean of 3.00; Performance ranks third with a mean of 3.09, followed by Usage, having the lowest mean of 2.94.

TABLE IV
OVERALL DESCRIPTIVE STATISTICS OF CONSTRUCTS

Variables	Efficiency	Performance	Usage	Effectiveness
N	40	40	40	40
Mean	3.67	3.00	2.94	3.09
Std Deviation	1.03	1.05	1.06	1.05

This implies that the majority of teachers believe that EvalTools increases efficiency, performance and effectiveness, despite their negative perceptions about the ease of use and usability of EvalTools. Most of the faculty agree that EvalTools increases efficiency by managing Home Work, Quizzes, Examinations and results, which result in time saving. Teachers can keep track of student performance by using various tools like Faculty Course Assessment Report (FCAR) and Gradebook etc. in EvalTools throughout the semester. It increases the quality of teaching and learning, hence the performance of users. Most teachers view EvalTools as an effective tool for teaching and learning as it is helpful in meeting the course outcomes by providing the above discussed tools. The results showed that a slight majority of teachers have a negative perception of usage of EvalTools LMS. They find that most of the students don't upload their assignments through the online Assignment section of EvalTools. Most of the teachers don't use the various tools provided in the EvalTools such as email tool, online Attendance/ Roster tool, discussion forum. The main reason for this is lack of flexibility to enable users to customize the interface. Moreover, too many main menus (14 No) and their sub-menus are confusing and overwhelming for the users. Lack of proper training can also be a factor that teachers have negative perceptions about the usage of this tool.

V. CONCLUSION

With advancing technology and the constantly evolving needs of modern learners, the traditional classroom-based approach is fast losing its significance and becoming less efficient. In such a setting, using LMS in education provides a sensible option for educational institutions, allowing instructors to deliver customized information, utilize numerous pedagogical methods, and engage their students far better than before. Although educational institutions can provide training to students in a variety of methods, an LMS is one of the most effective ways to conduct online training. When you use an LMS as an online education platform, you can simply link it with other platforms to encourage students and teachers to study and share their knowledge. The educational benefits of an LMS are strong enough that educational institutions all around the world are taking notice, appreciating, and implementing them.

Keeping in view the importance of the use of technology in learning and teaching pedagogy, this study was conducted to determine the perception of faculty about the technology they are using in their teaching activities, i.e., an LMS. The findings of this study are valid as it has identified important factors including Efficiency, Performance, Usage and Effectiveness that help understand the perception of users towards the Learning Management Tools (LMS) which in this case was EvalTools. These factors were validated using various validation techniques. The collected data were tested for reliability through Chronbach's Alpha testing method. The results of this study revealed that the overall, majority of teachers

have a positive perception that EvalTools LMS increases the efficiency, effectiveness, and performance of users. However, a slight majority of teachers have a negative perception regarding the ease of use of this tool. The findings of this research provide a valid contribution to the existing body of research related to LMS and provide motivation for future research. Future research could be conducted to study the perception of students towards the EvalTools LMS. Further studies can be conducted at other national and international universities that use the LMS.

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The 2nd International Workshop on Metaverse and Artificial Companions in Education and Society (MetaACES 2022Nov) (28 or 29 Nov 2022)

Siu-Cheung Kong and Yunsi Ma

I. INTRODUCTION

The 2nd International Workshop on Metaverse and Artificial Companions in Education and Society (MetaACES 2022Nov), organized by The Education University of Hong Kong, will be held on 28 or 29 November 2022 in ICCE 2022.

For more details of MetaACES 2022Nov, please refer to https://www.eduhk.hk/metaaces2022NovICCE2022/.

MetaACES 2022Nov aims to provide an interactive platform for academics, researchers, practitioners, and professionals in the education sector to share and exchange research agenda, innovative ideas as well as practices of promoting and exploring metaverse, artificial companions, and related technologies. MetaACES 2022Nov comprises seminars and panels delivered by internationally renowned scholars, researchers, and practitioners. Catalysed and facilitated by emerging technologies, the metaverse and related artificial companions will affect us in every aspect of our lives.

The workshop program includes keynotes, presentations, and panels. Accepted papers in the workshops will be published in proceedings, which will be submitted to Elsevier for inclusion in Scopus. Accepted papers will be selected and invited to submit their full papers to one of the three Open Access ESCI publications: Elsevier's Computer & Education: Artificial Intelligence, Springer's Research and Practice in Technology Enhanced Learning, and IEEE TCLT's Bulletin of the Technical Committee on Learning Technology.

II. THEMES

MetaACE 2022Nov focuses on the themes related to education and society. The main themes of MetaACES 2022Nov include but not limit to the followings (in alphabetical order):

- Artificial Companion in Education and Society
- Artificial Intelligence (AI)
- Assessment in Games and Virtual Worlds
- Authentic Environments and Worlds

- Automated Feedback
- Avatars or Player Characters for Learning
- Behaviour and/or Interaction Modeling, Detection and Visualization
- Big Data Analyzed and Processed by Computers
- Bridging Informal and Formal Learning Outcome
- Chatbot
- Computational Models of Knowledge and Expertise
- Computer Supported Discussion Analysis and Assessment
- Educational Applications of Metaverses
- Educational Robots and Toys
- Emotion (Affective State) Modeling, Recognition and Detection
- Emotive Agents
- Enhancing Grading, Scoring and Feedback
- Game Analytics
- Human Computer Interaction (HCI)
- Human Robot Interaction (HRI)
- Intelligent Agents, Tutors and Mentors
- Internet of Things (IoT), Internet of Everything (IoE), and/or Sensors
- Learning Companion Robots (Robotic Learning Companions)
- Languages, Thinking Skills, Meta-cognitive Skills, Cognitive Skills, and STE(A)M
- Learning Analytics in Educational Games
- Learning Companions
- Metaverse in Education and Society
- Motivational and Affective Factors on Learning with Technology
- Natural Language Processing supported Tools, Systems, Applications, Mobile Apps, and Chatbots
- Non-Player Characters for Learning
- Personal Learning Environments (PLE)
- Roles of Artificial Companions in Metaverse
- Role Playing Games for Learning
- Security and Privacy Issues
- Sentiment Analysis
- Simulation and Training (Skill, Competence, Vocational Learning)
- Social Network Analysis (SNA)
- Speech Recognition and Synthesis
- Stealth Assessment
- Unstructured and Semi-structured Data for Computer to Read and Learn
- User Experience (UX) Evaluation
- Virtual and Augmented Learning Environments
- Virtual Animal Learning Companions
- Virtual Characters and Companions in Learning and Life
- VR, AR and Simulation Technology

III. IMPORTANT DATES

- Submission (via EasyChair) due: July 22, 2022
- Notification of Acceptance: August 2, 2022
- Final Camera-ready version due: August 16, 2022
- Author registration due for ICCE 2022: August 29, 2022