

# The LUMS<sup>x</sup> Perspective

- Volume 2 -



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# Director's Message

Dear Colleagues, Students and Friends,

We are very pleased to announce the 2nd edition of the LUMSx Perspective!

This year has been a period of great progress and innovation for our work. In the following pages, we offer a snapshot of our achievements, lessons learned, and growth. You will find out about the 12 new, exciting courses that we have launched, hear from our learners about their learning experience, and get a glimpse of our new LUMSx website.

We depend tremendously on the LUMS community for furthering our mission and we are grateful to each LUMS faculty member, Alumni and student who has played a critical role in supporting our work on lifelong learning and professional development. We have shared more details ahead about the specific support we received from the LUMS community.

As a center that emphasizes knowledge sharing, we organized multiple events to foster intellectual exchange and community engagement this year. Our webinar series on Generative AI for Empowering Education and Professional Growth was a resounding success. We also organized multiple Ed-Tech baithaks that provided a platform for deeper discussions on educational technology innovations.

We believe that upskilling Pakistani learners requires collaboration with organizations who share our mission. In the coming pages, you will hear about the official partnerships we have formed with organizations such as the Agha Khan University Institute of Education Development, Ali Institute of Education, Amal Academy, The Citizen Foundation, LEAPS, Daftarkhwan and Kickstart.

We are also very excited to announce the FutureEd summit that will be taking place in early August '24 where we will bring together our diverse community to take stock of the current and future directions in learning technologies.

As we look ahead, we remain committed to delivering high-quality education and fostering a vibrant community of lifelong learners. We extend an invitation to you to connect with our work and come on board with our mission of transforming teaching & learning at LUMS and beyond.

With sincere appreciation,



A handwritten signature in black ink, appearing to read 'Suleman'.

Dr Suleman Shahid  
Faculty Director, LUMSx

# LUMSx - Who We Are

## Our Vision

To extend LUMS' excellence in teaching and research beyond its borders by leveraging technology.

## Our Mission

As the center for online learning and professional development at LUMS, we aim to be the next frontier in Pakistan's digital education. We intend to address the knowledge & skill gaps that can support individuals to effectively upskill themselves.



### Access

We act as an innovation hub in digital learning that bridges barriers of time, cost, location, and language between expert educators and learners.



### Quality

We are a dynamic team of digital learning specialists – faculty, instructional designers, software developers, market researchers, illustrators, and video producers – who aim to achieve the highest standards of quality in our courses.



### Impact

With the aid of expert educationists and meaningful pedagogical tools, we are fostering a culture of learning and a community of empowered individuals motivated to resolve critical issues of their time.

# Our Learning Products



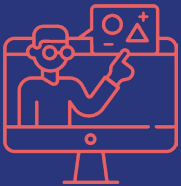
Technology can play an integral role in furthering learning and equalizing socio-economic opportunities for learners. In line with this belief, we at LUMSx develop a variety of learning products that adeptly cater to the diverse needs of Pakistani learners. We offer courses that build towards specific specializations or Stackable Certificate Programs. Within these programs, courses are offered in various formats:

## Self-paced courses



Learners can engage in their learning journey at their own pace with our self-paced asynchronous courses. These courses are designed for flexibility, allowing participants to access content and complete assignments according to their schedule. This format provides the freedom to learn anytime and anywhere, making it easier to integrate learning into a busy lifestyle.

## Hybrid courses



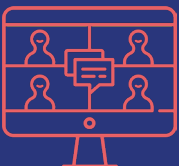
Learners can embark on a dynamic learning journey with hybrid courses, which skillfully blend the convenience of online self-paced content with engaging live elements. These courses offer the best of both worlds, featuring live sessions, virtual tutorials, and opportunities to connect with instructors during office hours, all while maintaining the flexibility of asynchronous learning. This hybrid approach provides a personalized and interactive educational experience, ensuring that learners receive the support and guidance they need, regardless of their location.

## Open CourseWare



While this is not part of the Stackable Certificate Program, Open courseware is another format in which LUMSx offers free access to online teaching materials and resources from LUMS' on-campus course offerings. Learners from across the world can benefit from free access to cutting-edge research from LUMS' Schools and Centers. Our courses are being offered both on ilmX platform and the LUMSx LMS.

## Live online courses



Learners can join a vibrant community with Live Online Courses, participating in real-time sessions led by expert instructors. These courses feature dynamic discussions and instant feedback, further enhancing their learning experience. Participants can connect with peers, share insights, and experience collaborative learning. The virtual classroom fosters a sense of community, curiosity, and meaningful connections, elevating the overall learning experience as live sessions transform the way learners engage with educational content.

# Our Prioritized Domains

As the center for online learning & professional development, we conducted extensive market research to identify domains with significant need for upskilling.

Our research has led us to prioritize the following three domains:

## Teaching & Education



Attending school does not equate to learning; many of our schools continue to churn out a student population that struggles with foundational numeracy & literacy and is ill-equipped to meet the complex skill demands of the 21st century. In K-12, research is clear about the cause: Teacher and school leadership quality drive student learning - any quality gaps here hinder not only student's learning but also their future earning potential. We, as LUMSx, intend to provide quality digital teacher professional development to improve student learning and enhance the professional mobility of the teacher workforce.

## Business & Management



Many Pakistani universities fail to equip students with necessary job market skills, leaving many graduates unemployed or unable to demonstrate key skills like adaptability, communication, leadership, collaboration, problem-solving, and analytical ability. Organizations often lack ongoing professional development programs to upskill employees. While global platforms like Coursera and LinkedIn Learning offer resources, they fall short due to language barriers and lack of localized content. Our goal is to upskill the Pakistani workforce, ensuring they are prepared for both current roles and a rapidly evolving future.

## Data Science & Information Technology



Pakistan is currently produces over 25,000 IT graduates annually and is home to more than 300,000 IT professionals. According to the Economic Survey of Pakistan (2020-2021), the compound annual growth rate for IT and related services reached 18.85 per cent, the highest growth rate of any industry in the region. However, despite these growing numbers, there is a huge dearth of skilled workers in this sector, which hampers Pakistan's ability to unlock significant economic value. One important factor that serves as a major obstacle to learning is the lack of sufficient skills training. Our goal is to leverage the immense potential of Pakistan's technology sector and develop specialized programs that help learners upskill in line with local & global needs.

## 1. Teaching & Education:

# AI IN THE CLASSROOM: Strategies and Tools for Educators

(Self-Paced)

### About this Course

The primary objective is to familiarize teachers with generative AI, empowering them to leverage this technology to address teaching challenges and improve their existing methodologies. With a unique focus on Pakistan's educational landscape, this course provides tutorials and resources for educators to craft learning materials, lesson plans, and assessments. Distinguishing itself from other offerings in the country, this course stands out by providing specialized training on specific generative AI tools alongside commonly used ones.

### Instructors:



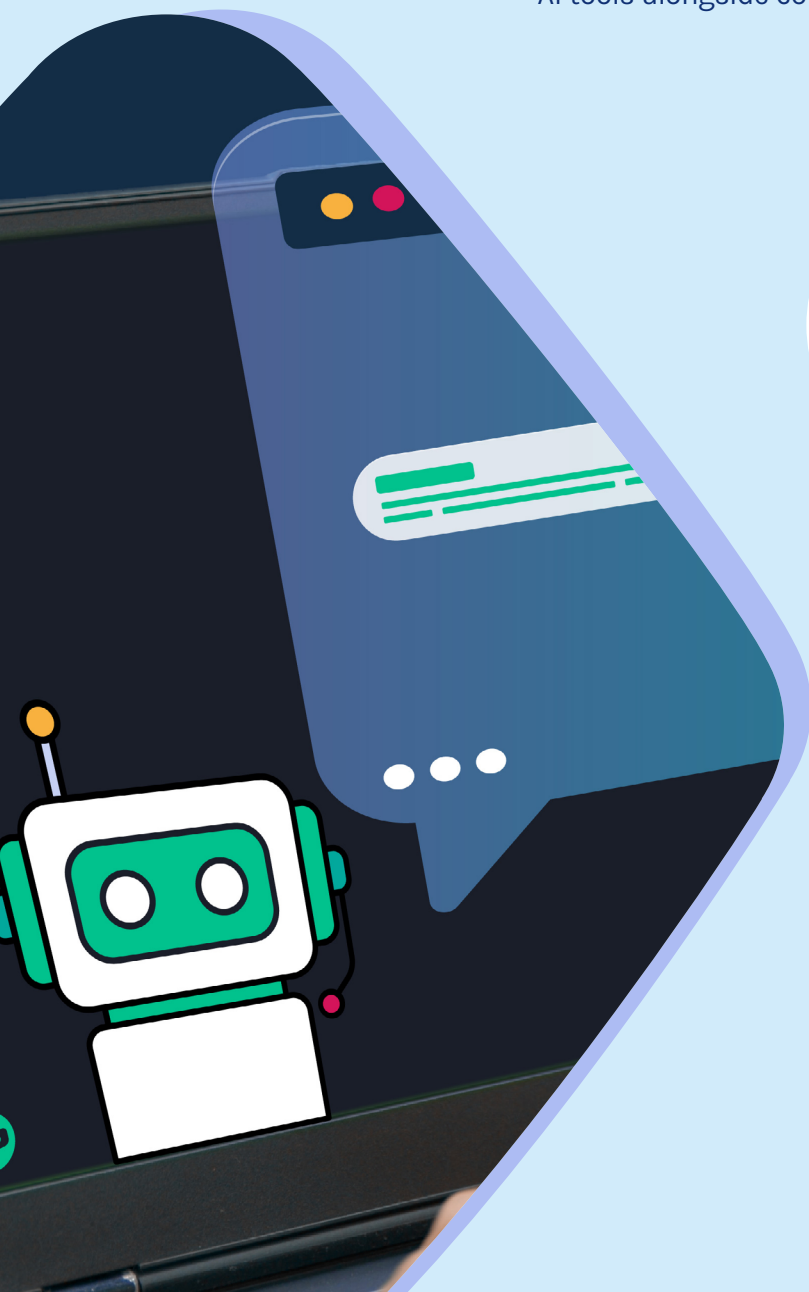
**Sameen Asghar**

Lead Instructional Designer  
LUMSx



**Dr. Suleman Shahid**

Director, LUMSx  
Associate Professor, LUMS



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# STEM FOR EDUCATORS

(Hybrid)

Instructor:



**Dr. Tasneem Anwar**

Assistant Professor  
Science/ STEM Education

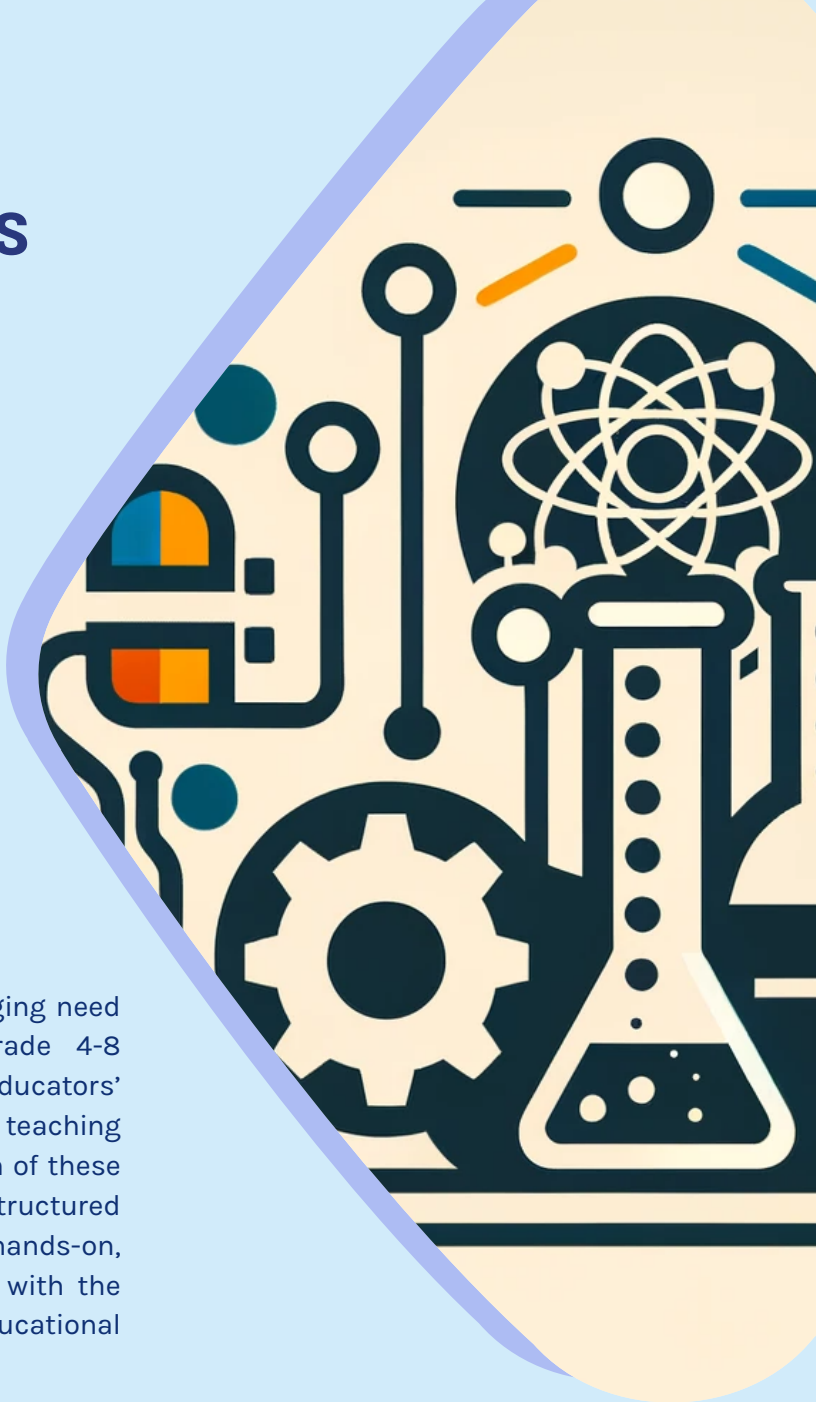
## About this Course

This course is developed in response to the emerging need for STEM-integrated instruction within the Grade 4-8 curriculum. Our objectives are to enhance educators' understanding of STEM, promote innovative teaching strategies, and encourage the practical application of these concepts in real classroom settings. The course is structured to stand out from other STEM trainings by offering a hands-on, reflective learning experience that directly aligns with the challenges and opportunities present in today's educational landscape.

The anticipated outcomes include improved STEM literacy among educators, increased confidence in implementing STEM activities, and a shift towards more interdisciplinary teaching approaches. Through a blend of theoretical insights and practical exercises, we aim to foster a community of educators who are prepared to lead and innovate in STEM education.



TBD. Visit for more info:  
[click here](#)





# TEACHING ENGLISH AS A SECOND LANGUAGE

(Self-Paced)

**Instructor:**



**Sannia Hussain**

Adjunct Faculty Member,  
School of Education, LUMS

## About this Course

Teaching English as a Second Language (TESL) is designed to introduce teachers to efficient and effective techniques of teaching English as a second language. It aims to equip teachers to teach English across the four language skills, with a focus on grammar and vocabulary. This course is based on five modules: background to language teaching and learning; components of language; teaching listening and speaking; teaching reading and writing and lesson planning and assessment techniques.

It is a hybrid cohort-based course with a combination of asynchronous videos and synchronous sessions. A series of mini asynchronous videos will explain the theoretical and practical aspects of topics in each module and learners are required to work through tasks and exercises for further practice. The synchronous sessions will provide learners with an opportunity to discuss the course material with the instructor and their peers, and to engage in peer learning and reflection activities.



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# Sannia Hussain

Sannia Hussain serves as an Adjunct Faculty member at the School of Education at LUMS. With expertise in training English language teachers and teaching courses in Linguistics and Academic English, she brings a wealth of experience to the learning environment.

Holding a Master's in TESOL (Teaching English to Speakers of Other Languages) and a Master's in Applied Linguistics from the UK, Ms Hussain is dedicated to advancing effective language teaching methodologies and supporting educators in their professional growth. In service of this goal, Sannia Hussain has collaborated with LUMSx on developing Teaching English as a Second Language. Through the course, Sannia shares valuable insights, practical strategies, and knowledge to enhance the skill-set of English language teachers.



**What do you think are some critical challenges within Pakistan's educational landscape today?**

There are a multitude of challenges, and it can be difficult to identify all of them. They range from lack of resources to inadequate teacher training to issues with accessibility to effective policies and their implementation. However, I would mention that some of these can be dealt with straightaway. For example, it is possible

to manage viable outcomes in a low resource context through appropriate techniques. Similarly, training teachers will prove to be beneficial for both learners and educators as I believe teachers are a tremendous resource and we need to develop their capabilities and hone their skills. Qualified teachers are equipped with managing, adapting and even creating resources including managing learning through student engagement.

## What is the role of digital learning in tackling some of these issues?

With the advent advancement in technology, digital learning has a vital role to play in dealing with some issues. It provides a platform for students and teachers in far flung areas of Pakistan, giving them access to multiple opportunities to benefit from. Mobile apps, online classes and various digital tools help deal with the problems of accessibility along with offering facilities for learning beyond the classroom which are available any time of the day or night. This works very well for 'learner agency' where students (and that includes trainee teachers) feel the ownership and control they can have over their own learning, and limitations of time and space do not hamper their progress.

## Let's talk about your course, Teaching English as a Second Language – what motivated you to create it?

As an English language specialist working in Pakistan and the international context, I cannot begin to enlist the factors that motivated me to create this course they are far too many. However, I would highlight a few which I deem to be the most prominent. Firstly, we as language teachers, need to acknowledge and internalise that English is a language and not a subject and needs to be taught in ways languages are taught i.e. by developing the skills. Working with teachers, while training and observing them, I have found them struggling with teaching and sadly, being unable to produce the desired results.

They put in a tremendous amount of effort, which unfortunately seems futile in most situations ONLY because teachers lack necessary training or are unaware of the language teaching methodologies. If these efforts are combined with comprehensive training and enriched knowledge and teachers are equipped with adequate techniques, the impact on

student learning will certainly be remarkable. This has always been my motivation: empowering teachers to help them enlighten students. Additionally, there is a great demand (and need) to learn English hence, it is essential to learn how to teach it effectively.

Despite the in-person training I do continually, I still do not find it enough and have always had the desire to do even more, although it has not been possible due to many constraints. When LUMSx provided this opportunity to develop an online course which has a great national (and international) outreach, I felt it was manna from heaven and something I had been longing to do. What could be more motivating than this?

## How was the process for adapting in-classroom content to an online format?

I have to admit it was challenging, and initially I was kind of skeptical about many aspects. I have been a teacher for 25 years and the board (first green and then white) has been my undeniable, long-standing ally. It was hard to imagine how the lectures would turn out, without reverting to the board to explain in detail and that was a bit unnerving. Also, the examples, the handouts, the worksheets and the basic interaction patterns were all difficult to conceptualise. But, all my accolades to the team for their innovative designs and technical expertise which made this process seamless, and the end product is far beyond my expectations.

The initial apprehension, which was mostly on my part, was quickly diffused due to consistent support and then it became an enjoyable and extremely fulfilling progression.

### **LUMSx is currently offering the course to cohorts of teachers. What is the value of such an experience for participants?**

I do not think I can do justice to this answer; the participants would do best. Although, if I think of the time when I was a novice teacher and had been given the facility of this course, I would have found it extremely beneficial. This course is designed in such a way that even those who have no teaching experience would greatly benefit from the content. Aspiring teachers would find it to be a wonderful induction programme, enabling them to enter the classroom with confidence, fully aware of what and how they need to do things. And of course, working teachers would enhance their teaching practice and learn ways of adapting materials and designing innovative activities and tasks. The course covers all aspects of English language teaching along with basic teaching skills as well, which makes it comprehensive and allows teachers to fully exploit their potential.



teachers to attend in-person training sessions because of time constraints and travel expenses. Such a platform allows them to participate in a quality programme, which is self-paced and helps them combine their existing knowledge with newer concepts and go back to their classrooms to employ these strategies. Also, teachers from different areas, different schools and diverse levels get to exchange views and personal experiences, all the while imparting and gaining knowledge and multiple perspectives.

Another achievement I am proud of is the course content and the way it is presented. The lecture videos have an interactive alternative too, which makes it very easy and engaging for the participant. Moreover, the synchronous content, i.e. the live classes, are the highlight of the session, where the instructor gets to meet and interact with the participants. This personalised interface consolidates their learning with shared experiences and helps establish ties and a sense of camaraderie that the participants might miss in the asynchronous part of the course.

### **Are there any upcoming projects that you're looking forward to?**

Yes. There are many projects in the pipeline and some are already underway. There is great demand and a substantial need as well, for English language learning. With LUMSx, I am planning to do a number of courses related to Fluency in English i.e. Spoken English, Writing Skills, English for Specific Purposes and a few others. Apart from these, I am doing a few training certificates for the Professional Education Office at SOE. I am also working with a couple of organisations, training their employees for Business English.

### **What are some achievements from this course that you are most proud of?**

The biggest achievement is the ability to reach a much wider audience that would not be possible to attain through in-person sessions. The silver lining behind COVID 19 was the enforced online learning which turned out to be a blessing. We found ways of establishing a teaching and learning context in the absence of a physical classroom. Teachers and students should have the provision of availing opportunities to learn, even when they do not have means to access a physical space/setting created for such a purpose. It is difficult to get working

# BUSINESS COMMUNICATION: Transformative Strategies for Professional Growth (Self-Paced)

## About this Course

Do you struggle with choosing the right words during a meeting or while writing an email? Is the art of delivering a compelling presentation or networking with others eluding you? Does the inability to manage conflicts or persuade others effectively worry you? If these questions resonate with you, our online course in Business Communication is precisely what you need.

This course is not just about learning the basics of communication; it's about transforming the way you interact in a professional setting. We explore the common pain points that most professionals face – from articulating thoughts clearly to understanding the dynamics of communication in various contexts.

## Instructors:



**Prof. Atif Rahim Khan**

Adjunct Faculty, LUMS  
MBA, Thunderbird School of  
Global Management



**Dr. Shezeen Hemani**

Assistant Professor, LUMS  
PhD, University of Glasgow



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# PROJECT MANAGEMENT

(Self-Paced)

## Instructors:



**Jazib Zahir**  
CEO  
Tintash



**Kamil Hassan**  
Authorized Trainer  
Project Management Institute

## About this Course

Projects create value across various sectors, with industries like software and construction relying heavily on them. Projects range from event planning to new IT systems, policy establishment, office moves, managing disaster, product launches, marketing campaigns, and client contracts. This introductory course covers project management fundamentals, offering tools and techniques to develop skills and manage successful projects. You'll learn effective strategy creation, task management, and organization to complete projects of varying complexity. Expert insights and real-life examples will enhance your understanding, while exploring diverse career pathways in the dynamic field of project management.



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# MANAGING UPWARDS, SIDEWAYS AND DOWNWARDS

(synchronous)

Instructor:

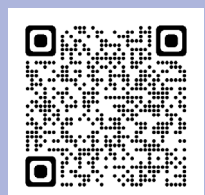


**Prof. Atif Rahim Khan**

Adjunct Faculty, LUMS  
MBA, Thunderbird School of  
Global Management

## About this Course

Embracing a holistic 360-degree view of management, this course offers an immersive, interactive, and practical learning experience that goes beyond conventional managerial paradigms. Participants engage in a journey of acquiring practical tips and innovative solutions uniquely attuned to address the management related challenges prevalent in Pakistani organizations. This course stands out for its emphasis on self-reflection, field research, and peer learning, grounding managerial concepts in the specific nuances and complexities of the Pakistani business environment.



**More Details**  
[click here](#)



# INTRODUCTION TO DATA SCIENCE

(Hybrid)

Instructor:

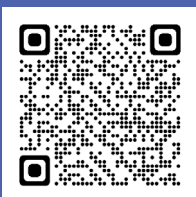


**Dr. Ihsan Ayub Qazi**

Associate Professor,  
Syed Babar Ali School of  
Science & Engineering, LUMS

## About this Course

This course introduces key principles and techniques of data science, preparing students for advanced work in machine learning and computational social science. It's a Python-based, hands-on course with significant data analysis. The first half covers descriptive statistics to understand data biases, principles of data cleaning, exploratory data analysis, and data visualization. It then addresses causal inferences and evidence-based impact evaluations. The second half focuses on statistical inference and machine learning, including hypothesis testing, confidence intervals, A/B testing, models, loss functions, optimization, regression, classification, regularization, and learning challenges. The final module covers scalable data collection, storage, processing, and data ethics



TBD. Visit for more info:  
[click here](#)



# MACHINE LEARNING

(Self-Paced)

Instructor:

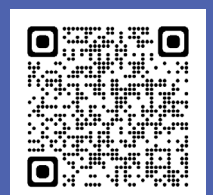


**Dr. Agha Ali Raza**

Assistant Professor,  
Syed Babar Ali School of  
Science & Engineering  
LUMS

## About this Course

Are you intrigued by Artificial Intelligence and Machine Learning? This course covers essential skills, concepts, and applications of Machine Learning, from self-driving cars to voice assistants. Through eleven well-curated modules, you'll learn fundamental to advanced techniques, including supervised learning, neural networks, and ethical considerations. Engaging videos, hands-on exercises, and feedback ensure practical application. Led by Dr. Agha Ali Raza, this course breaks down complex algorithms into everyday concepts. By the end of this course, you'll have a deep understanding of Machine Learning techniques and their responsible use in various fields, setting you on the path to proficiency in Machine Learning.



**Enroll Now**  
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# Dr. Agha Ali Raza



Dr. Agha Ali Raza is an Assistant Professor of Computer Science at LUMS, a Mahbub ul Haq Research Center (MHRC) fellow, and a member of the consortium of experts that leads the MS in Artificial Intelligence program. He is the founding director of the Center for Speech and Language Technologies (CSaLT) and the Principal Investigator of the Crime Investigation and Prevention Lab (CIPL) under the National Centers of Big Data and Cloud Computing (NCBC) initiative of the government of Pakistan. His cumulative experience as part of the Computer Science faculty at FAST-NU, ITU, and LUMS spans thirteen years. He teaches Computer Science courses at graduate and undergraduate levels, including Natural Language Processing, Speech Processing, and Machine Learning.

Dr. Raza works to help foster an accessible, inclusive, equitable, and safe digital world where everyone can thrive. With the aim to democratize knowledge, he has developed an online Machine Learning course with LUMSx. A comprehensive offering, the course is infused with his trademark stimulating teaching style and his ability to deconstruct some of the most complex ML algorithms into everyday, applicable concepts.



### What are some major skill deficiencies in the current workforce of Pakistan?

One skill which is now emerging as a pervasive need is understanding how artificial intelligence (AI) and data science can help with developing professional workflows. So that goes for all kinds of tasks, all the way from very labor-intensive jobs to the most intellectually demanding work.

### Can you talk about how your work, particularly your teaching, tries to address these gaps?

In my classroom teaching at LUMS, I focus on rigorous coverage of these topics. I teach a Machine Learning (ML) course, the only one offered by the Computer Science (CS) department, which usually gets an enrollment of more than 200 students every semester. This course goes into mathematical details, hands-on implementation, as well as the intuitive idea behind ML: how does it work? What are its various techniques and mechanisms? I also teach a course on generative AI in which students learn to design the backend of GPTs such as ChatGPT. So, on a small-scale, my students learn how to make those systems robust, fair, and suited for the requirements of a particular profession. So, that's my focus through the courses I teach.

I also conduct workshops with various departments within LUMS, including LUMSx, LLI and CES, where we try to explain, to people who are not from a CS background, what ML is and the various AI tools they can use to augment their capabilities in their own jobs.

### You have been involved in various digital learning projects. How was the process of creating a MOOC with LUMSx?

It was a great experience. I've worked with various groups and organizations in developing courses, both in-person and online, and safe to say that I found the experience with LUMSx to be extremely professional at all levels. The course design process is very rigorous. It has checks and balances to ensure that the content is high-quality. As instructors, when we are developing a course, sometimes it is easy to be very enthusiastic about one aspect of the content and lose sight of the bigger picture. But the LUMSx team ensures that the learning experience for the student is never compromised and that all necessary aspects are in balance.

### What was your motivation for creating an online Machine Learning course?

With something as pervasive and highly necessary as ML and AI, it's not always possible for people from various walks of life to just start attending a degree program or an in-person course. Suppose you are a busy professional. And you are now interested in augmenting your own skillset and developing an in-depth understanding of AI and ML. Now, how do you find the time in the day to enroll for a long duration program at an institution? You have a 9-5 job. And then in the evenings or the weekends, you must spare time for these classes. That's not easy. An accessible, self-paced online course solves that problem.

Then another motivation for me was to create something rigorous. You'll find millions of lecture videos on the subject, perhaps a lot more freely available on Youtube. But are they comprehensive? Will a learner be assessed or receive adequate feedback? There are other platforms as well like Coursera. However, they are not tailored to the needs of an average Pakistani student.

Whereas the course that we have developed here at LUMSx, and other courses in the works, address all these concerns. They are built for the Pakistani context, will be accessible to people from various fields, and provide a comprehensive learning experience.

### **What do you see as the role of an institution like LUMSx in transforming the technological landscape in the country?**

Its potential is enormous because in Pakistan we do not have many online learning platforms which are highly trusted, both nationally and internationally. We need such online platforms which can guarantee that the quality of content and rigour is like an in-person degree program, and similar to courses offered internationally. So, for example, compared with MIT OpenCourseware or other courses offered by Stanford or Berkeley, the courses here at LUMSx are being delivered mostly by professors who are themselves qualified from those institutions. They are well-established people in their fields with years of service. So therefore, my hope is that as soon as people will start understanding what the platform is about, LUMSx will become a major phenomenon that is going to aid both the personal upskilling and development of people, and at some point, play an instrumental role in institutional workforce

development and capacity building.

### **Are there any upcoming projects that you can tell us about?**

One of the upcoming projects is my follow up course to ML 1 with LUMSx, which is about advanced topics in ML, including topics like bagging and boosting, unsupervised learning including PCA, feature selection and anomaly detection. We are also covering AI agents in the reinforcement learning part of the course. So, I'm excited about that course; we will soon finish production on it and release it.

Other than that, we are also planning an entire year of workshops, some of which are along particular verticals for professionals, and others which target fundamental understanding of generative AI for people from a non-CS background. That way, people learn about the application of tools like ChatGPT, their strengths and weaknesses, and how they can be leveraged to speed up work and make pipelines more efficient. So that's also something that I'm really looking forward to!

# QUANTUM PHYSICS FOR BEGINNERS

## About this Course

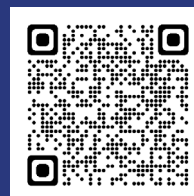
This course is intended to be a first introduction to quantum phenomena in nature. Quantum Mechanics forms the basis of our description of nature at small scales and a clear understanding of it is required to understand phenomena ranging from atoms and chemical bonding to semiconductors and nuclear physics. We will present a concise and comprehensive picture of quantum theory with an emphasis on concept building. The concepts will be organized around the ideas of wave-particle duality, uncertainty, superposition, entanglement, and their physical and conceptual consequences. Numerous applications to real-world phenomena will be discussed throughout the course

Instructor:



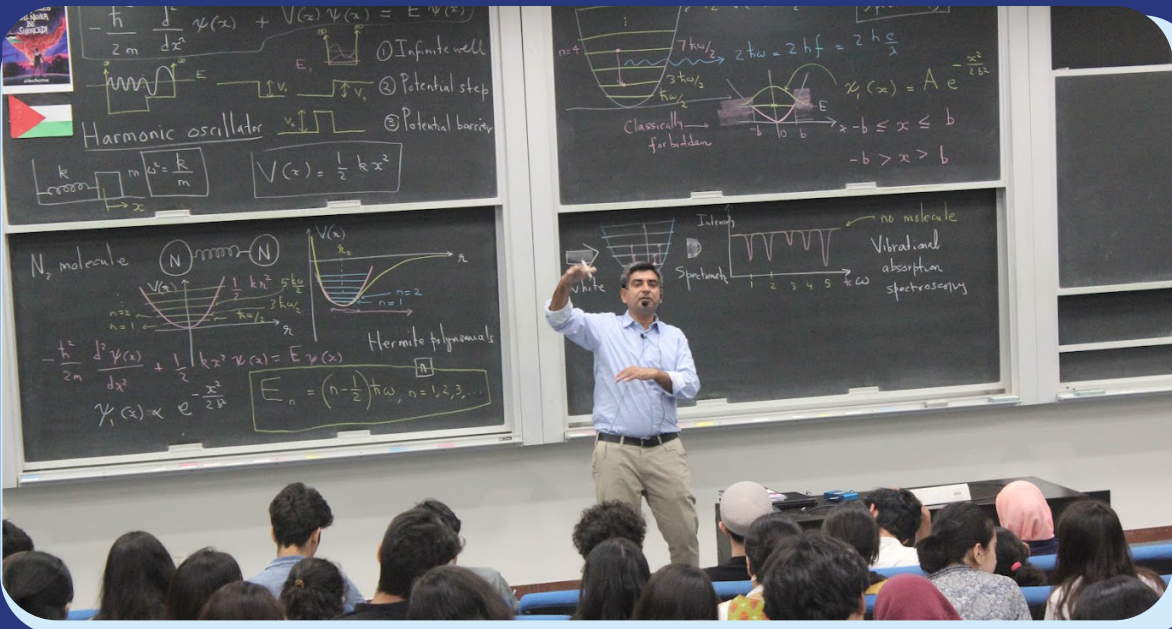
**Dr Muhammad Sabieh Anwar**

Professor, Syed Babar Ali  
School of Science & Engineering



Access course on Youtube  
[click here](#)





# PROBABILITY

Instructor:



**Dr Sultan Sial**

Associate Professor, Syed  
Babar Ali School of Science &  
Engineering

## About this Course

This introductory course in probability is perfect for anyone looking to understand and model random events in everyday life. It's a great stepping stone for advanced studies in fields like statistics, economics, engineering, and the physical and social sciences. Through this course, you can expect to understand the basics of probability, random variables, explore important probability distributions, and understand their application in real-world situations.

Whether you're a student aiming to build a solid foundation for future studies or simply curious about how probability works, this course is designed to be accessible and engaging for all!



TBD. Visit for more info  
[click here](#)

# DISCRETE MATHS

Instructor:



**Dr. Imdad Ullah Khan**

Associate Professor- Computer  
Science  
Syed Babar Ali School of  
Science & Engineering

## About this Course

This course covers the mathematical foundations of computer science. The aim is to introduce students to the fundamental techniques of discrete mathematics, which may be employed in a variety of mathematical disciplines, including fields in theoretical computer science, such as, algorithms, data structures and complexity theory. An introduction to logic, proof techniques, sets, functions, and relations is made, along with an initiation to combinatorics, basic graph and tree structures. Problems are formed mathematically and solved using available tools and techniques. Overall, this course provides students with a robust foundation to tackle complex problems in computer science and prepares them for further advanced studies in the field.



TBD. Visit for more info  
[click here](#)



## Unique Offerings

# MINDFUL PARENTING

### About this Course

Executive functions encompass mental skills vital for planning, organizing, decision-making, multitasking, and daily tasks. For children and teens, this includes classroom routines, material preparation, focus amidst digital distractions, social interaction, stress management, and resilience. Neglecting these skills hampers academic performance, social relationships, emotional regulation, and adaptability, persisting into adulthood, affecting employment, relationships, and daily functioning. Parents play a crucial role in fostering these skills at home. The workshop aims to educate parents of elementary or early teenage children about executive functions, offering practical strategies to support cognitive development and well-being. It includes understanding executive functions, identifying challenges, and implementing tailored action plans for individualized improvement.

### Instructor:



### Falak Akhtar Wahla

Mental Health Counselor,  
Masters in Human Development  
and Psychology,  
Harvard University



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## Existing Courses

Managing Upwards, Sideways and Downwards

Mindful Parenting

Health and Wellness - A Manual

Teaching Practice: Fundamentals of the 5E Model

Teaching English as second language

Business communication: Transformative strategies for professional growth

AI in the classroom: Strategies and tools for educators

Paradigms of Brain Function

Project Management

Course Design & Development

سیکھنا سیکھیں

پشتو زبان سیکھیں: ایک آن لائن ابتدائی کورس

فارسی سیکھیں - ایک تعارفی آن لائن کورس

Machine Learning I

Quantum Physics for Beginners

### Internal Courses:

TA Professional Development Course

## Upcoming Courses

Computer Science Bootcamp

Discrete Math

Probability

STEM for educators

Classroom Management

Differentiated Instruction

Assessment development

Persuasion & Influence

Introduction to Data Science

Machine Learning II

CS for Teachers

Business Essential for Non-business professionals

Introduction to Political Theory

Explore Now



<https://lumsx.lums.edu.pk>

# Partnerships & Collaborations

LUMSx has considerably expanded its partnerships this year. In the past year we have collaborated with diverse organizations to bring fresh perspectives and resources, which has enhanced our ability to serve our learners better. You can find more details about our partnerships below:

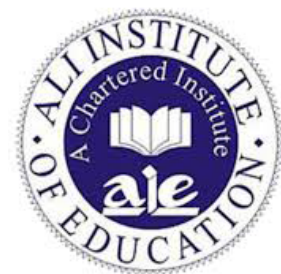


The Agha Khan University- Institute of Education Development (AKU-IED) is an institution focused on improving educational quality through professional development, research, and policy analysis.

LUMSx's partnership with AKU-IED is centered on exploring opportunities for and co-developing online professional development programs in key areas including STEM, early childhood education, and executive education for school leaders. Currently, the LUMSx and AKU-IED team are developing a course on STEM for Educators that is set to launch in August 2024.

The Ali Institute of Education (AIE) is an integral player in the teacher training landscape in Pakistan. They aspire to improve education quality and promote professionalism amongst teachers.

The LUMSx team has partnered with AIE for carrying out market research for our online courses as well as for course piloting and outreach.





**Amal Academy** is a social enterprise dedicated to developing industry-relevant skills in Amal Fellows who are third-year, final year university students as well as fresh graduates.

LUMSx and Amal Academy have partnered for the Gift a Certificate Program launched this year. We intend to support the upskilling of Amal Fellows through our online courses. We have shared more details about the Gift a Certificate Program on the next page.



**Daftarkhwan** is a co-working space for entrepreneurs and a resource palette for startups and exclusive enterprises.

LUMSx will be collaborating with Daftarkhwan to support the professional development of their community members through offering our existing courses as well as creating customized courses that effectively address their needs.



THE CITIZENS FOUNDATION

The **Citizens Foundation (TCF)** is one of Pakistan's leading non-profit organisation dedicated to bringing about positive social change through education.

TCF is another key partner in our Gift a Certificate Program where we aim to support the upskilling of TCF Alumni through our online courses. We are pleased to share that the first cohort of TCF learners has just started their journey and are taking LUMSx's Machine Learning course.



**Kickstart** is the pioneer of Coworking spaces in Pakistan, catering to corporates, IT service companies, SMEs and freelancers.

LUMSx and Kickstart have partnered together to support the professional development of their community members across Pakistan.



**LEAPS** is a social enterprise that equips children and youth with the tools, knowledge, and opportunities to create a better future for themselves and their communities.

LUMSx and LEAPS are currently co-developing a Creative Learning Program in partnership with CCE (Creativity, Culture and Education), a UK-based organization dedicated to transforming the learning experience of children and young people.

# Gift a Certificate \*

## Support Learners to Thrive & Excel in their Professions

One of this year's highlights has been our Gift a Certificate program, which aims to democratize learning across Pakistan. As the center for online learning and professional development, we believe that access to quality learning is a fundamental right for all individuals and it is our collective responsibility to uphold this belief. Through the Gift a Certificate program, we intend to enable tens of millions of Pakistanis to learn anytime, anywhere. In service of this goal, we have partnered with **Amal Academy** and **The Citizen Foundation (TCF)** to support their learners through our online courses.

If you would like to support the upskilling of learners at Amal Academy and TCF, please find more details below.

### Our Donation Causes



#### Advance Teaching Excellence

Enable educators in low to mid-tier Pakistani schools to gain the necessary skills to guide the next generation of leaders



#### Foster Future Leadership

Create pathways to success for learners and cultivate future leaders by sponsoring their access to customized LUMSx courses



#### Empower Her Growth

Support women to excel in diverse professional paths: from data science, information technology, project management, to education

### Ways to Donate



#### Generate Bank Voucher



#### Pay Online



#### Check Payment



#### Donate now! [click here](#)

## Internal Events

### 1. LUMSx AI Webinar Series: Generative AI for Empowering Education and Professional Growth



#### ‘Webinar Series on Artificial Intelligence: A Resounding Success’

In our recent webinar series hosted by LUMSx, we embarked on a journey to demystify the world of Artificial Intelligence (AI) for our local Pakistani audience. This series, focusing on Professional Development, Learning, and Teaching, was designed to empower professionals and educators with the knowledge and tools needed to harness the potential of AI in their respective fields. The reception from our audience has been overwhelmingly positive, reflecting the growing interest in and need for such initiatives.

#### Engaging Content Tailored for Local Needs

LUMSx’s commitment to contextualizing content for our local audience shone brightly throughout the webinar series. Each session was delivered in a bilingual format, ensuring accessibility and comprehension for all participants. By featuring subject matter experts actively working in Pakistan, we provided insights that were both relevant and Highlights from the Sessions

#### Webinar 1: Learning How to Work with Generative AI

Jazib Zahir’s impressive background, with experience spanning technology product development and education, added significant value to the series. His engaging presentations and live demonstrations captivated the audience, showcasing how generative AI can automate tasks, inspire creativity, and transform workflows

#### Webinar 2: Learning How to Learn with Generative AI

Hammad Malik’s demonstration of an AI tool that understands and responds in Urdu captured significant attention from our participants. Although still in development, the tool has already sparked considerable interest. This WhatsApp-based tool, which understands audio queries, shows great promise for education and learning, particularly for the s in Pakistani learners especially who cannot read or write.

#### Webinar 3: Learning How to Teach with Generative AI

In the final webinar of our series, our course instructors from AI in the Classroom, Sameen Asghar and Dr. Suleman Shahid, provided strategies for teachers to use in their classrooms. Dr. Suleman emphasized the importance of developing a student-centered curriculum that prepares both the students and teachers for AI use. Sameen presented a framework for interacting with these tools and demonstrated how educators can develop and refine content using an AI tool specifically designed for teaching.

The feedback from our audience has been



overwhelmingly positive. Participants praised the webinar series for its practical approach, engaging content, and the expertise of our speakers.

The positive reception from the audience underscores the impact and importance of such initiatives in the digital age.

The series ended with the launch of Pakistan's first self-paced course on generative AI for educators called AI in the Classroom; Strategies and Tools for Educators. The course is designed for educators to equip them with the skills required for the future of teaching. You can enroll in the course by visiting our website.

## 2. EdTech Baithak Series: Sharing Expertise, Inspiring Innovation

### Baithak 1: Preparing Our Students for an AI-Driven Future

The inaugural LUMSx EdTech Baithak Series launched with Associate Professor Ben Leong from the National University of Singapore (NUS) discussing AI's impact on education. Addressing concerns about AI like ChatGPT potentially causing job losses and handling student homework, Professor Leong shared how NUS prepares students for an AI-driven world. Highlighting new opportunities, he emphasized the need for educators to guide students through the volatile, uncertain, complex, and ambiguous landscape shaped by advancements in AI.



Prof. Ben Leong

### Baithak 2: EdTech for Inclusive Education: Challenges, Opportunities, and the Path Forward

The second edition of the LUMSx EdTech Baithak Series featured a panel discussion with Annum Sadiq, co-founder of Edkasa, and Aiman Bashir, co-founder of Out-Class. Titled EdTech for Inclusive Education: Challenges, Opportunities, and the Path Forward, the panel explored the role of technology in making education more inclusive and accessible in Pakistan. The panelists shared their experiences and insights on personalized learning and emerging trends in EdTech, addressing the challenges and opportunities of transitioning to online education.



Annum Sadiq, co-founder of Edkasa, and Aiman Bashir, co-founder of Out-Class.



### 3. Animation and Illustration Workshop: From Sketches to Screens



2023 was the year LUMSx opened its office doors to the broader LUMS community, especially its students. Despite the absence of Art and Design courses at LUMS, students have continuously found innovative ways to nurture their creative pursuits - from illustrators and storytellers to designers and musicians, our campus is teeming with talent. Often the young illustrators and designers who come to work at LUMSx are from the student body and, while they are immensely talented, there are few opportunities for these budding artists to gain professional skills which we often require in our work.

Since empowering learners is a core part of our work, we thought why not share the expertise of our team with the learners within LUMS? Thus, as part of its Creative Internship Program, the LUMSx visual design team held two free skill-development workshops:

1. Principles of Animation
2. Introduction to Adobe Illustrator

These workshops were open to both staff and students, and we were delighted to see the enthusiastic response from the LUMS community.

With 120 eager sign-ups, we shortlisted 40 participants on a first-come, first-served basis. Principles of Animation covered the fascinating evolution of animation over the years as well as some essential principles of frame by frame animation, which are incorporated in all animation, whether hand-drawn or AI-created, to this day. The session ended with a fun activity, assisted by the LUMSx visual design team, in which students created their own animations on paper and turned their drawings to life.

In the second workshop, we covered the essentials of Adobe Illustrator, a tool even accomplished designers find quite daunting and one which is industry standard for most design-related work. We were proud to see that, although the students struggled initially, most of them were able to accomplish the main goal of the session.

Encouraged by the response to these sessions, LUMSx will continue this tradition of holding skill-based workshops for the LUMS community and hopes some of these talented students may even eventually join us as part of our team!



## 4. Pecha Kucha Night: Bridging Art, Science, and Activism in Education

LUMSx organized an engaging Pecha Kucha Night themed "Art, Science, and Activism: Unveiling Perspectives in Education," accompanied by a Doodle Art session at Khokha on 16th November 2023. Pecha Kucha, a presentation format where speakers show 20 slides for 20 seconds each, brought together faculty, staff, and students to explore various facets of activism within education.

Distinguished speakers included Dr. Shaper Mirza, who discussed antimicrobial resistance, Hazem Asif, who unraveled the power of visual storytelling and design journalism, Dr. Suleman Shahid, who presented on design activism in the modern AI-driven world and Ibrahim Iftikhar & Minahil Noor who shared their journey as students at LUMS while pursuing their artistic passions. In the second workshop, we covered the essentials of Adobe Illustrator, a tool even accomplished designers find quite daunting and one which is industry standard

for most design-related work. We were proud to see that, although the students struggled initially, severalmost of them were able to accomplish the main goal of the session. complete the main task of the session, which was to create an owl.

Encouraged by the response to these sessions, LUMSx will continue this tradition of holding skill-based workshops for the LUMS community and hopes some of these talented students may even eventually join us as part of our team!







## 1. ITCN Asia

The LUMSx team attended ITCN Asia, a premier 3-day event organized by Ecommerce Gateway Pakistan (Pvt.) Ltd. This event brought together Pakistan's tech and startup ecosystem, offering a platform to showcase solutions in various sectors including education, AI, and cybersecurity. At ITCN Asia, the LUMSx team introduced the center to many unfamiliar attendees and networked with industry leaders from both the public and private sectors. The event focused on networking, knowledge sharing, and lead generation, facilitating a dynamic learning environment for tech enthusiasts and highlighting the latest innovations in the tech industry.



## 2. 5th Biennial Scholarship of Teaching and Learning Conference, 2023

The LUMSx team attended the Aga Khan University's 5th Biennial Scholarship of Teaching and Learning Conference (SoTLC2023). This event aimed to unite educators, students, researchers, and stakeholders to share innovative ideas and best practices in transformative teaching. Celebrating its 10th anniversary, AKU's Network of Quality, Teaching, and Learning hosted this momentous occasion. The conference promoted evidence-based teaching, engaged learning, and networking among participants from various academic disciplines. The LUMSx team introduced their center, networked with educators, and explored new synergies and practices to enhance learning in higher education.



### 3. 12th International Conference on Technology, Pedagogy, and Society: Critical Appreciation of the Present and Prospects for the Future

The LUMSx team attended the 12th International Conference at Aga Khan University's Institute for Educational Development (AKU-IED) in Karachi. The event, themed 'Technology, Pedagogy, and Society,' provided a platform for dialogue among thought leaders, policymakers, and practitioners. The team presented a broader vision of LUMSx and networked with school leaders and organizations to understand the needs of educators and schools. Highlights included keynote addresses by Sean Michael Morris and Dr. Maha Bali, panels on EdTech reform, and workshops on topics like Educational Robotics and Fostering Equitable Learning Spaces. The conference emphasized the transformative potential of inclusive educational practices and the critical role of pedagogical leadership in integrating technology into education.



### 4. TEDx

LUMSx, in collaboration with TEDx, hosted a talk featuring Syed Babar Ali and Dr. Suleman Shahid. Syed Babar Ali shared his profound passion for education, highlighting the transformative impact of the National Outreach programme (NOP) at LUMS, which provides educational opportunities to underserved communities. He emphasized the potential of technology to amplify this impact, envisioning online learning scaling from 5,000 to 50,000 students. Dr. Suleman Shahid then discussed the importance of online learning, outlining key principles for designing accessible and comprehensible educational programs. He stressed the need for creating equitable learning opportunities in Pakistan and explored how technology can be a powerful tool in achieving this goal, illustrating a path towards greater educational equity and inclusivity.



# Distant yet connected:

## How to Foster a Sense of Community in Virtual Classrooms

By Javaria Ahmad

In the shift towards digital learning, fostering a strong sense of community in virtual classrooms is crucial for enhancing student engagement and learning outcomes. It is important to move beyond merely completing an online course and toward building a community where learners engage with and learn from each other. A question also arises: what are the ways to achieve this goal? At LUMSx, we leverage several strategies to build this community spirit in our professional development and teacher training courses for various age groups and learner profiles.

A key strategy is the cohort model, where 20-25 learners enroll simultaneously, progressing through the course together. This facilitates a peer learning environment, closely mimicking the interactive dynamics of traditional classrooms but with the flexibility of online learning. In this cohort model, there are live sessions as well where the course instructor leads the session. This setup allows learners to feel connected to the person teaching the course, learn from the expert, and have their questions addressed in real-time.

To further promote interaction, we use breakout rooms in synchronous sessions for small group discussions, projects, and peer reviews. This enables deeper engagement with course content and fellow learners, helping to build lasting professional connections and being able to share ideas with each other during the class so that everyone can debrief in the main room.

Moreover, to maintain continuous communication, we establish dedicated groups for each cohort. These groups serve as a casual platform for students to share insights, coordinate assignments, and support each other, enhancing



the learning experience beyond the classroom's formal boundaries. It serves as a platform for the learners to share their thoughts and questions with the course teaching assistants and help each other.

LUMSx also integrates a comprehensive LMS featuring a discussion forum and a messaging feature. These tools are instrumental in facilitating structured discussions, allowing learners to post questions, engage in debates, and access additional resources at their convenience. The messaging feature ensures that learners can reach out to instructors and peers directly, fostering an open line of communication that is crucial for collaborative learning.

By combining these digital tools and strategies, LUMSx creates a nurturing and supportive online environment that not only delivers high-quality educational content but also builds a vibrant and interactive learning community.



# LUMSx Creative Internship Program

By Ibrahim Iftikhar



In October 2023, LUMSx proudly launched its inaugural Creative Internship Program, a groundbreaking initiative designed to foster innovation and practical skills among students. This two-month internship program attracted participants from diverse academic backgrounds, bringing them together to work in the Design, Illustration, and Media departments. The program's primary goal was to bridge the gap and provide students with invaluable hands-on experience in various creative fields in the Ed-Tech Industry.

The internship garnered an overwhelming response, with over 80 applications from across Pakistan. Following a meticulous portfolio review process, shortlisted candidates were interviewed by our creative team, resulting in the selection of five exceptional interns. The final group included three students from LUMS—one first-year student and two seniors—alongside one intern from Habib University and the other from University of Lahore. Throughout the eight-week program, this talented group was immersed in a collaborative environment, engaging with various departments across LUMSx. The program featured workshops and project-based learning, equipping all interns with skills in software like Adobe Illustrator.

A key feature of the internship was mentorship. Interns worked under the direct supervision of team and project leads, tackling tasks such as illustrating course videos, designing social media and print content, editing videos and animations, and conducting relevant research. This hands-on experience provided interns with practical insights into the ed-tech industry while enhancing the efficiency of the LUMSx team.

We were also thrilled to welcome two interns, Javeria Khan and Syed Muhammad Mussadiq, who joined the LUMSx team as part-time Research Assistants after the internship ended and have since become valuable team members. Their dedication and passion for online learning have been instrumental in supporting LUMSx's vision. Mussadiq shared his experience, saying:

**“At LUMSx, I met amazing people from diverse backgrounds, all bringing their artistic talents to the table. One video, many creative touches – I can really feel the team’s effort and creativity behind it. I’m glad to be a part of it!”**

The success of this Creative Internship Program highlights LUMSx's commitment to nurturing talent and fostering innovation, solidifying its reputation as a leading center for online learning and professional development. This achievement has paved the way for the upcoming Summer Internship Program, which has already received over 250 applications. We look forward to meeting our Summer Interns soon!



# Our Student Partners

**Business Communication:**

Maha Jamshaid (MGSHSS)

**AI in the Classroom:**

Rayan Anwar Khan (SDSB)

**Project Management:**

Khadeja Anwar (SDSB)

**Machine Learning:**

Warda Jamil (MGSHSS)

**Development Research Assistant:**

Hammad Javaid (SBASSE)

**Marketing Intern:**

Hamza Mubashir (MGSHSS)

**Data Science**

Eimaan Saqib (SBASSE)

Rimsha Sarfaraz (SBASSE)

**Creative Internship**

M. Danish Nadeem (SDSB)

Rabia Zahid (SDSB)

Javeria Khan (SBASSE)



# LUMS Alumni Engagement: Enriching Learning and Strengthening Community



By Faryal Siddiqui

At LUMSx, we take immense pride in the active involvement of LUMS alumni and their contribution towards the enrichment of our courses and the overall learning experiences we curate. Engaging the LUMS alumni community has not only helped us in enhancing the course content and delivery but also ensuring that our courses remain relevant, dynamic, and aligned with industry standards.

Here's a glimpse into how the LUMS alumni have been engaged in different capacities:

Our alumni have stepped up as industry experts, particularly in our Business Communication and Project Management courses.



### Ms. Nuzhat Kamran

An industry expert in the Business Communication course, Ms. Kamran is a master's in business administration (MBA) graduate from the Suleman Dawood School of Business (SDSB) and is currently serving as the Director of the Office of Advancement (OA) at LUMS. With over 25 years of experience in higher education management, Ms. Kamran provided valuable input on the importance of communication in the workplace and a variety of ways in which professionals can improve their communication skills. Her input specifically catered to topics such as maintaining appropriateness in workplace conversations, fostering respect, cultivating trust, and upholding workplace culture.



### Ms. Abida Nagra

An industry expert in the Project Management course, Ms. Nagra holds an Undergraduate degree (BSc. Hons) in Computer Science from the Syed Babar Ali School of Science and Engineering (SBASSE) and has worked as a project manager for over 15 years. Ms. Nagra provided learners with valuable insights into her day-to-day responsibilities as a project manager, the importance of planning ahead, understanding team dynamics, and the tools she uses to execute her role effectively.

The real-world experience and insights from these industry experts provide

our learners with practical knowledge of current industry trends. By sharing their professional journeys and challenges, these alumni experts bridge the gap between theoretical learning and practical application, preparing our students for the demands of the business world.

Several alumni have also taken on the role of instructors in the courses we offer, bringing their unique perspectives and teaching styles to both synchronous and self-paced courses.



### **Dr Kamil Hassan**

A former MBA graduate of SDSB, Dr. Hassan is a co-instructor for our self-paced Project Management course and plays a vital role in apprising the learners on the theoretical foundations of Project Management.

We also have several esteemed alumni developing synchronous courses with us which are scheduled to be offered June onwards. Here is a list of alumni and the synchronous courses they will be offering:

1. **Business Essentials for Non-Business Professionals** by Nausher Ahmed
2. **Mindful Parenting** by Falak Akhtar Wala

The first-hand experience the LUMS alumni bring as former students enables them to connect with current learners on a deeper level, understanding their challenges and aspirations. These alumni instructors not only impart knowledge but also serve as mentors and role models, inspiring the next generation of professionals.

Lastly, our alumni have also contributed significantly as research assistants, taking on diverse roles within LUMSx. We successfully engaged six alumni as full time research assistants to work in different departments within the centre. These alumni are involved in areas such as: impact evaluation, market research, UI/UX design, production/pre-production, qualitative research and synchronous learning.

These roles allow alumni to apply their skills and knowledge in practical settings, driving innovation and improving the quality of our course offerings. Whether conducting market analysis, assisting in course production, or engaging in in-depth qualitative research, our alumni have been at the forefront of our continuous improvement efforts.

As we continue to grow and evolve, we are committed to fostering even greater engagement with LUMS alumni. We believe that their ongoing involvement is crucial to our success and the success of our learners. We are immensely grateful for their contributions and look forward to exploring new avenues for collaboration.

# LUMSx Faculty Fellowship

**Dr. Aman Abid** has been a key contributor to LUMSx since he joined us as a Fellow in November 2023, heralding a transformative phase for our marketing endeavours. As an Assistant Professor at the Suleman Dawood School of Business, Lahore University of Management Sciences (LUMS), Dr. Abid brings a wealth of experience and strategic thinking to the table.

Dr. Abid boasts a rich background in social media marketing, political marketing, and relationship marketing, honed through teaching since 2012 in both Pakistan and Australia. His research garners recognition in esteemed marketing journals and at international conferences. At LUMS, he cultivates the next generation of marketers through courses like Principles of Marketing, Integrated Marketing Communications (undergraduate), and Marketing Management (graduate).

At LUMSx, Dr. Abid's contribution extends beyond traditional teaching. A hallmark of his fellowship has been his initiative to foster collaborations between LUMSx and his students. By integrating student group projects with our marketing objectives, Dr. Abid enabled us to explore fresh perspectives, validating our strategies and unearthing new audience segments and innovative marketing concepts. This symbiotic relationship not only enriched students with real-world experience but also bolstered visibility and brand awareness for LUMSx.



Additionally, his expertise in digital marketing has been equally transformative. His insightful guidance has yielded a comprehensive re-evaluation of our targeting, messaging, and pricing models. This strategic refinement has resulted in a more cohesive and demonstrably effective overall marketing strategy for LUMSx.

Dr. Abid's contributions have been invaluable in aligning with LUMSx's mission to foster innovation, drive impactful learning experiences, and uphold our values of excellence, inclusivity, and collaboration. His passion for digital learning and commitment to our vision have created a lasting impact. We look forward to continued engagement and innovation with Dr. Abid, leveraging his expertise to advance LUMSx to new heights.





**Professor Atif Rahim's** journey with LUMSx began when he developed a transformative course on Business Communication with LUMSx. His interests quickly became apparent as he immersed himself in various projects and initiatives with our team. One such impactful contribution has been his Fellowship, where he has played a crucial role in transforming organizational culture and informing key processes.

With a background in working with leading organizations across various industries,

Professor Rahim is well-versed in strategic decision-making. His insightful contributions have ensured that our strategy is deeply rooted in the realities of our learners, aligning with the center's overarching vision and goals. His mentorship has been instrumental in positioning LUMSx for success in the rapidly evolving educational landscape.

Another notable intervention during this fellowship was guiding the LUMSx team in redefining and reestablishing core values for the center. Through close collaboration with the team, he helped create a comprehensive, actionable plan that aligned with these values, setting a strong cultural foundation for LUMSx.

During his fellowship, Professor Atif Rahim also conducted an engaging session with the team on how to navigate difficult conversations. The session was insightful and a great learning experience for the team who were introduced to useful models that can be leveraged to structure and lead such conversations effectively.

Overall, Professor Rahim's fellowship has been marked by strategic innovation, pedagogical enhancement, and a commitment to advancing the LUMSx mission. We are excited to continue learning from him and engaging him in future ventures at LUMSx!



# Our Success Story

By Zahra Aamer

At LUMSx, we believe that good instructional design can unlock the latent potential in every learner. One of our critical goals for 2023-24 was to channel the research and teaching excellence of the LUMS faculty toward learners who would benefit the most and, in turn, inspire others - generating a ripple effect of positive change. We also wished to expand our portfolio of learning products and subjects to those which would be most relevant to our learner's professional and personal lives.

## Our Offerings:

LUMSx has successfully launched over 20 learning products, including 12 self-paced courses, 4 cohort-based courses, and 1 short live-online course. Our self-paced courses attracted over **400** customer sign-ups this year, with ***Project Management, Teaching Practice: Fundamentals of the 5E Model, Teaching English as a Second Language, and AI in the Classroom*** emerging as our most popular offerings.

This year, we also introduced two new online learning modalities—live-online and cohort-based courses—designed to meet the urgent needs of working professionals in our rapidly evolving socio-economic climate. These new offerings aim to help learners adapt to new technologies while fostering valuable networks with peers. Both modalities were highly successful and helped us reach unprecedented audiences.

Additionally, we recorded Open Courseware for five LUMS courses: Quantum Mechanics for Beginners, Human-Computer Interaction, Introduction to Political Theory, Probability, and Discrete Mathematics. These will soon be available on the LUMSx YouTube channel as well as on the LUMSx LMS.

Another important highlight this year was the Teaching Assistant's Professional Development Course (TAPDC) that we developed in collaboration with the LUMS Learning Institute (LLI).

This online, self-paced course for prospective and existing TAs was designed to enhance their skills for effectively supporting students. It received positive feedback from several students within the LUMS community.

## Our Learners:

We identified the following groups of learners as our core audience:

- K-12 teachers
- Working professionals

We are proud to share that ***we have impacted over 1200 learners all across Pakistan*** - the equivalent of filling five auditoriums with a diverse body of eager students.

70% of these learners signed up directly for our courses, while the rest were enrolled through our partner organizations. Most of these learners experienced online learning for the first time and were pleasantly surprised by our platform's user-friendly design and the flexibility digital mediums offered in their professional development. Here's what they had to say:

## Testimonials:

### Soalet Jawairiah Fahim

Teacher & Coordinator

I picked up practical tips for teaching English, especially using tech in class, and adapting lessons for different students. It really boosted my teaching skills and confidence. Plus, the course was so interactive and the support from instructors and classmates made it a blast.

---

Army Public School, on **Teaching English as a Second Language**

### Seemab Saleem

Visual Arts Teacher

Through this course, I found that I can rearrange my teaching framework to enhance the critical thinking of the child and make them good problem-solvers. My students secured 2nd position in an international competition, and I secured 3rd place in a lesson plan competition with the aid of this course.

---

Beaconhouse Civil Lines, on **Teaching Practice: Fundamentals of the 5E Model**

### Muhammad Faraz

Final year Business Major

Sir Jazib has explained everything well, from market experiences to the practical implementation of all the tools and techniques taught in class. I am sure that this will help me manage a variety of projects in my future career.

---

SZABIST, on **Project Management**

### Amara Ateeq

Primary Years Teacher

At the start of the course, I was a teacher who was overburdened with the thousands of unnecessary tasks. Now, I have learnt many generative AI tools for lesson planning, worksheet making and so on and feel supported!

---

Learning Hub, Gujranwala, on **AI in the Classroom**

### Mehreen Jamil

Academic Co-ordination Lead,

This was one of the best workshops I have ever attended - it was very interactive especially the break-out rooms, role-playing, discussions - all the components helped in understanding how communication works in an organization

---

MGSHSS, LUMS on **Managing Upwards, Downwards and Sideways**

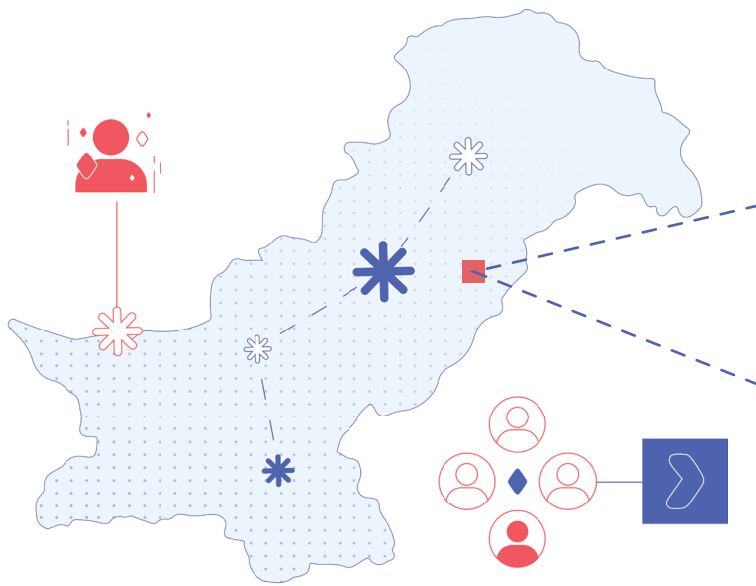
### LUMS Student

The best thing about TAPDC was the scenario-based questions, which helped me put myself in the TA's role and prepared me for what was to come. The quizzes in the course also helped me clear important ambiguities.

---

on **Teaching Assistant Professional Development Course (TAPDC)**

Here are some of the institutes where LUMSx successfully ran cohorts this year:



Institution	Based in
Happy Home School	Karachi
Jadeed Dastagir School	Gujranwala
Teach For Pakistan	Islamabad
Army Public School	Islamabad
Happy Palace Group of Schools	Rawalpindi
Syednawala School	Kasur
Lahore Grammar School	Sialkot
Farooqi School	Lahore
Lahore Grammar School	Lahore
Adabistan-e-Soophia	Lahore

Through the cohorts we ran this year, we had the opportunity to directly engage with our learners and gauge the impact of the pedagogical decisions made in the creation of our learning products. It was heartening to see the cohort-members leave largely satisfied with the learning experience and with the confidence that they had achieved the learning objectives set at the start of the course.

Learners from various regions across Pakistan participated, overcoming physical barriers to access quality education. Through these cohorts, we collaborated with esteemed organizations like The Citizens' Foundation and Teach for Pakistan, as well as renowned schools such as Army Public School, Allied School, Happy Home School,

In all these cohorts, learners were highly appreciative of the effort put into the online course experience, particularly the bilingual modality of instruction, with most rating their overall satisfaction at 4-5 out of 5. LUMSx's custom-built LMS, which the team had been developing for a year, was also put to the test in the TESL and MUSD cohorts, receiving a user-friendliness rating of 4-5 out of 5.

In our AI in the Classroom cohort for teachers, we observed an exponential learning curve. Having little prior experience with generative AI tools, the participants developed innovative solutions that integrated generative AI meaningfully into their classrooms by the end of our hands-on hybrid course.

## Key Takeaways:



- Learners found the content engaging and interactive
- They uncovered the potential of generative AI tools to transform teaching
- The faculty was highly proficient in the course material
- Learners appreciated that the LUMSx team was available to offer support to learners wherever necessary
- The courses offered relevant and applicable skills and knowledge

### TEACHING ENGLISH AS A SECOND LANGUAGE LEARNER FEEDBACK



### MANAGING UPWARDS, SIDEWAYS AND DOWNWARDS LEARNER FEEDBACK



### TEACHING PRACTICE: FUNDAMENTALS OF THE 5E MODEL LEARNER FEEDBACK



## Conclusion:

LUMSx's mission to transform education through innovative online learning solutions has already made a significant impact on hundreds of learners. As we continue to grow and innovate, we remain committed to empowering learners and educators alike, fostering a brighter future for all.



# Embracing Growth and Change through Online Learning



By Kantaray Nawadir Pasha

**Are you looking to invest in something for your future? Start by investing in yourself and your skills. Change is the most consistent and inevitable force in the world. To embrace this ever-changing world, it is essential to upskill, improve, and adapt accordingly. Enhancing your skills is one of the most noble endeavors you can undertake for yourself and your career.**

Online learning has opened a new gateway for professional growth and development. International learning platforms such as Coursera, LinkedIn Learning, HarvardX, Udemy, and edX offer professional certificates in various languages, catering to diverse audiences and needs. These courses provide valuable skills that can lead to significant career advancements hence it is crucial to explore such courses that align with your career and professional goals.

According to Coursera, the highest-income skills worth learning in 2024 include Data Analysis, AI and Big Data, Content Creation and Management, Software Development, Project Management, User Experience, and Web Development. Similarly, courses like Time Management, Remote Work Foundations, and Communicating with Confidence on LinkedIn Learning are invaluable for enhancing productivity, balancing professional and personal responsibilities, mastering cloud-based tools for effective remote work, and improving public speaking and communication skills. Moreover, technical courses like Learning Python and Excel Essential Training are crucial for mastering data analysis,

offering efficient ways to handle and interpret data.

In Pakistan's context, LUMSx is leading the way in providing quality online education and professional development opportunities, offering courses like AI in the Classroom, Business Communication, Business Essentials for Non-Business Professionals, Project Management etc. These courses are designed to bridge critical knowledge gaps and address the diverse learning needs of Pakistani learners. They aim to equip individuals with the skills necessary to excel in their careers, ensuring they remain competitive in a rapidly evolving job market.

By leveraging the resources provided by LUMSx and other international platforms, you can ensure continuous growth and stay ahead in your career, effectively embracing the inevitable changes that come your way. It has become critical to embrace growth and change through online learning of such opportunities and to take advantage to enhance skills and advance in your career.







# Future Ed Summit 2024

(National Summit on Future of Education and Tech Enhanced Learning)



The National Summit on the Future of Education and Tech Enhanced Learning is a premier event bringing together educators, policymakers, researchers, and technology experts to explore the evolving landscape of K-12 and higher education in Pakistan. This summit aims to address current challenges and seize future opportunities in education, with a particular focus on integrating technology and Artificial Intelligence (AI) to enhance learning outcomes in both in-person and online settings.

## Objectives

1. Analyze and reflect on the current state of education in K-12 and higher education in Pakistan.
2. Explore innovative Edtech solutions and platforms, with a special emphasis on AI and online learning.
3. Facilitate networking and collaboration among educators, researchers, policymakers, technology providers, and Edtech startups.
4. Provide actionable insights and strategies for implementing AI and tech-enhanced learning in Pakistani educational institutions.



Event Calender X	
Date	Activity
August 3, 2024	Workshops, Talks and Panels
August 4, 2024	Talks and Panels



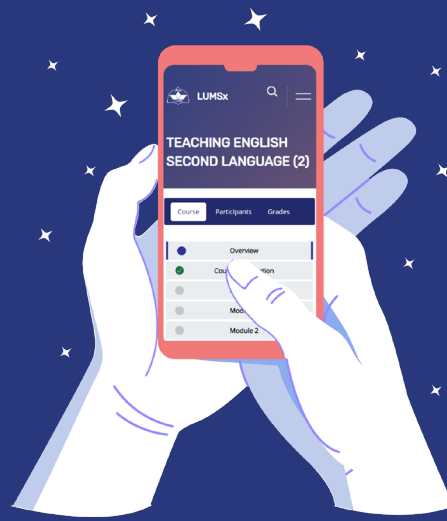
# The LUMSx LMS Revamped

Just as teaching methods change with time, so do the tools and technology that we use in the mission to provide personalized and effective learning. This year LUMSx has revamped its LMS to have a cleaner look for enhanced usability. The team of in-house designers and developers have made sure to make an intuitive user journey for our learners. Hosted on Moodle, this platform provides a user-friendly navigation making it accessible for users of all tech proficiency levels. Moreover, a customizable dashboard has also been added which gives the learners visibility of their learning.



## Mobile Friendly

Post-Covid, the importance of 'learning on the go' has become an essential. The LUMSx LMS is fully mobile-friendly, ensuring accessibility to courses and materials from any device, at any time, anywhere. This flexibility allows for adaptability to the diverse schedules of users, making learning more accessible and convenient.



## Supports Different Formats

As LUMSx courses may be synchronous, asynchronous or hybrid, it was essential for the LMS to support varied learning formats. For all kinds of students and teachers, whether they prefer real-time learning or self-paced study, there is accommodation. The platform is designed to support both live online and self-paced learning formats. Additional tools that the course instructors can use to author their course material also aid this learning.

### More Collaboration Tools

Collaboration can be the key to dynamic and effective learning, as interaction with others motivates us to work harder, and can make learning more enjoyable. The updated LMS offers a suite of advanced collaboration tools designed to foster such engagement, including: discussion forums, group projects, peer reviewed assessments, polls and H5P supported content.

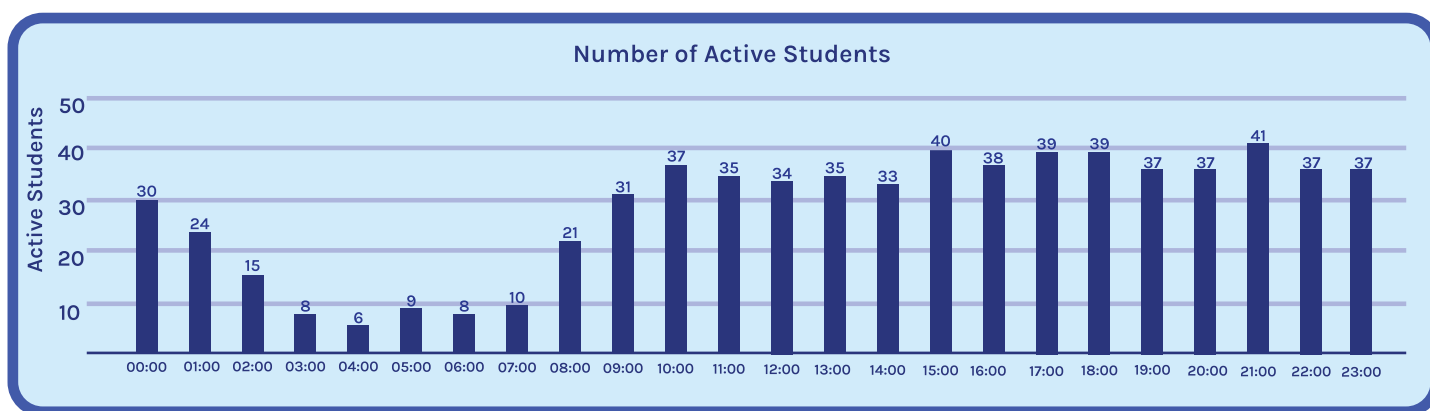
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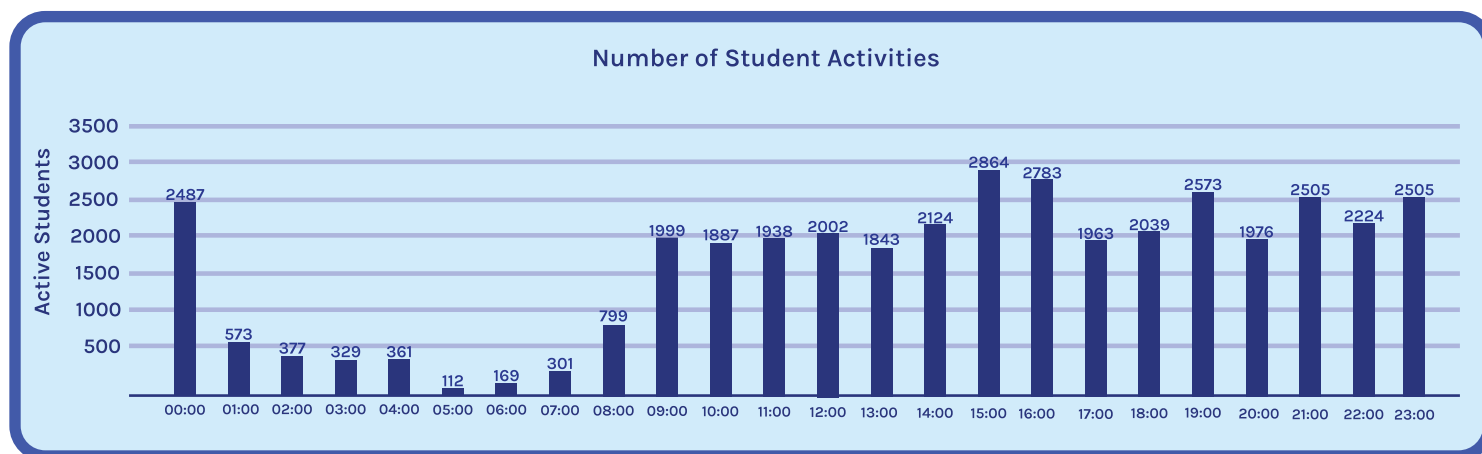
## Advanced Analytics

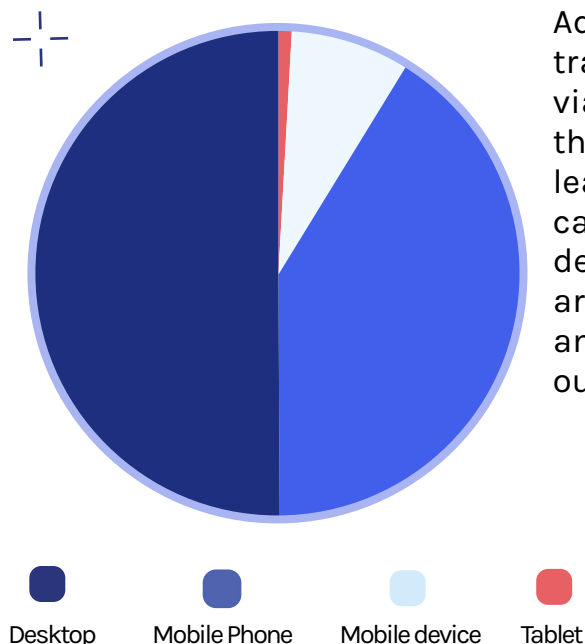
In our ongoing efforts to enhance our Learning Management System (LMS) for better data tracking, we have implemented several updates that will significantly inform our learners' experiences and our marketing initiatives.

To better understand our learner demographics and inform our social media marketing, traditional marketing, and business development strategies, we have added new data points to the course registration section. Learners are now asked to provide their location and educational qualifications. These metrics, taken from some of our courses, combined with existing data, enable us to gauge where and from which learner segments the demand for our courses is coming. This information allows us to tailor our marketing efforts to reach similar learners more effectively.



We have also upgraded our assessment statistics to provide better visualization of individual and average scores for each quiz and assessment. These enhanced metrics will help us gauge the overall performance of the cohort and identify areas for improvement where performance is low. This will allow us to address gaps in learning and ensure our courses meet learners' needs.



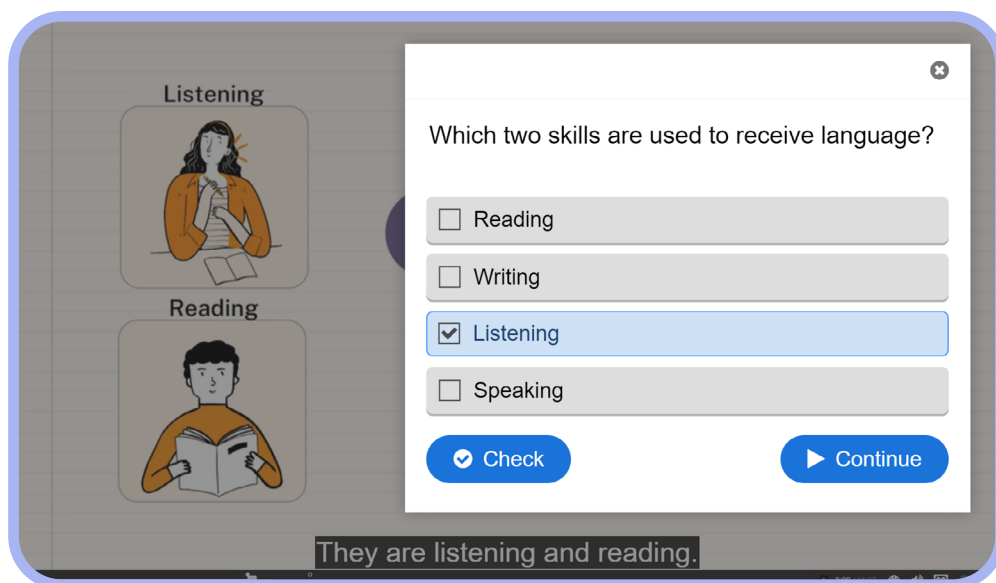


Additionally, our platform now includes analytics to track the percentage of users accessing the course via mobile devices versus the web. Understanding these statistics helps our team ensure a smooth learning experience across different devices, catering to the preferences of our diverse learner demographics. By integrating these updates, we are positioned to better understand our learners and optimize both their learning experience and our marketing strategies.

Type	Percent	Count
Mobile Device	7.88%	45
Desktop	50.09%	286
Mobile Phone	41.16%	235
Tablet	0.88%	5

## Interactive Learning

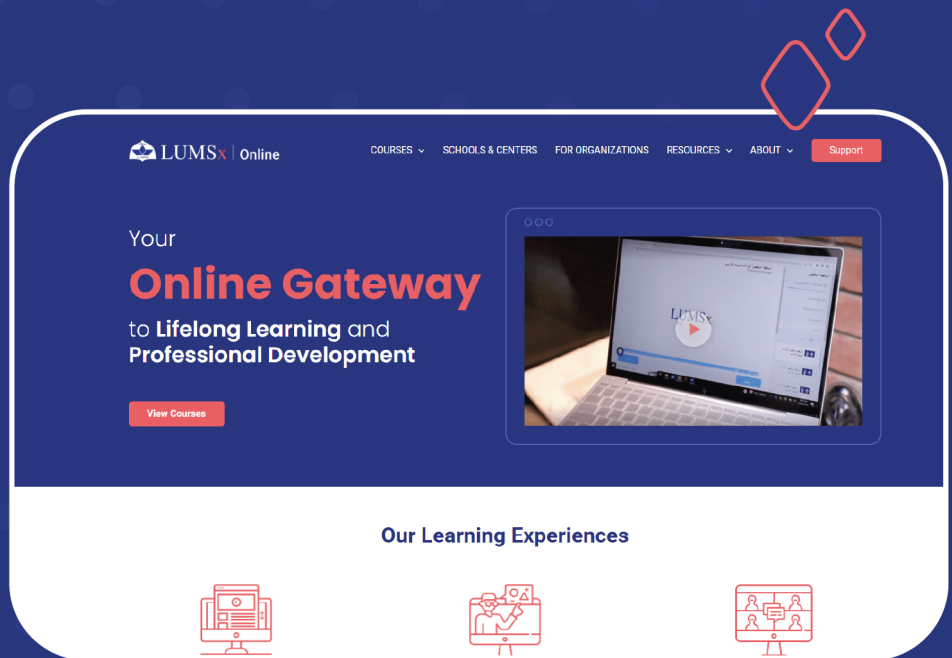
With all these improvements, we have also kept up the standard for our teaching tools. This includes interactive presentations, videos, quizzes, simulations, drag-and-drop activities, engaging analytic diagrams and surveys. All of this is packaged in customized animation by LUMSx itself.



Interactive in video quiz

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digital learning

<https://lumsx.lums.edu.pk>



Explore Now





LUMS<sub>x</sub>

