

LIVE Learning™

with

TABLETS AND MOBILES



As of 9th February 2012



www.mmpant.net

Brought to you by:



About these Products and Programs

The world of education is being disruptively transformed by the Mobile Internet and these programs are built around leveraging the mobile and wireless handheld access devices to create a completely new learning experience.

It has been demonstrated in a number of experimental and pilot projects that when learners have a full time access to the Internet and sources of learning resources the effectiveness of the learning experience is much better than with intermittent access in rationed quantities.

Now with affordable devices for internet access at the learner end, experiencing quality learning is far more easily possible than ever before. But both the learners and the teachers have to be oriented to the potential of this model of learning and to their respective roles as active learners and live teachers.

The programs and opportunities described here are an important step towards a **No Teacher Left Behind Project**.



"In Five Years, The Best Education Will Come From The Web."

— Bill Gates (6th August 2010)



"The year 2011 heralds the use of smartphones and tablets for learning at all stages and ages."

— M.M. Pant

We describe here a generic program for teachers and a shorter one for learners.

This is supplemented by programs to help the concerned subject teachers to set up a lab on the learner tablets for English Language, Mathematics and Science.

Information is also provided on how to set up 'Pop-Up Classroom' and this can create a completely new experience.

The access to a Tablet doesn't automatically foster learning. We have here described the potential of a Tablet for learning at 5 different levels. Any Tablet can be supplemented with resources to cater to higher levels of learning, though some features of the device may become a barrier to certain kinds of products.

But the key philosophy here is that Teachers and Learners move away from becoming mere passive users of content from content providers but become engaged in active curation and creation of content from a variety of sources.

Delivering Live Learning in a Classroom

Nominal Duration : 10 hours

1. The Pedagogical Potential of Tablets and Mobiles
2. A few reasons why Tablets are ready for the Classroom
3. How to choose a Tablet for Learning ?
4. Live Learning
5. Learning with Apps
6. New purposes of Education
7. New Roles of Teachers
8. The Portable Classroom
9. The impact : Inclusive Education, Celebrity Teachers, Nano- Learning , Reverse Innovation
10. Case Studies and Examples



Mathslab with Tabs

Improving mathematics learning is a major educational challenge. It is anticipated that school children across the world, will soon have personal Tablet computers with the potential to support learning.

And this gives an opportunity to 'play around' with Maths to develop an interest and facility in the subject.

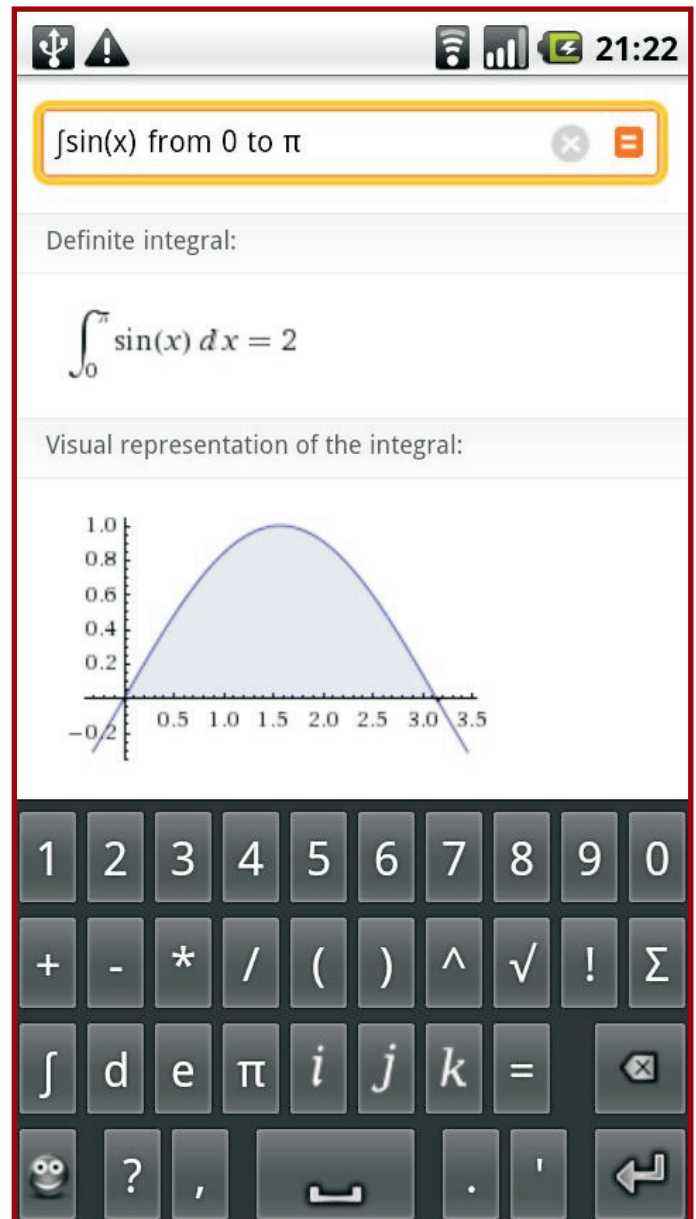
Is mathematics a laboratory subject?

Mathematics education has been willing to expand its comfort zone and see itself as a lab subject, rather like physics, with classes time-tabled as theory, held in an ordinary classroom, or practical held in the PC lab. How valid is the physics analogy? In physics the purpose of the labs (besides teaching laboratory techniques) is for the students to perform milestone experiments: no sound in a vacuum, a prism splitting white light into a spectrum of colours, etc. By analogy a mathematics lab can demonstrate Pythagoras theorem or the graphical solution of simultaneous equations. But the analogy is false.

Mathematics is a thinking-and-doing subject with the two actions intimately bound together, whereas in science education a separate presentation of theory and experiment is appropriate: the experiments show the theory has been tested and hence validated.

A mathematics lab has more in common culturally with a modern language lab than a physics lab- except that maths is a written language and language labs have, hitherto, emphasised the aural form. Because mathematics is a thinking-doing subject, time-tabled mathematics laboratory classes are counter-cultural: every maths class ought to be a laboratory class, but unfortunately the technology has so far been too expensive for this to be a reality.

We can help by identifying and recommending suitable resources for different stages and empowering the Maths Teachers to deploy these resources to accomplish learning goals that may be difficult to achieve in the traditional classroom or even one equipped with Interactive white Boards.



The Portable Classroom

The Key Elements :

- One Laptop per Teacher, 1L/T; and
- One Tablet per Learner, 1T/L

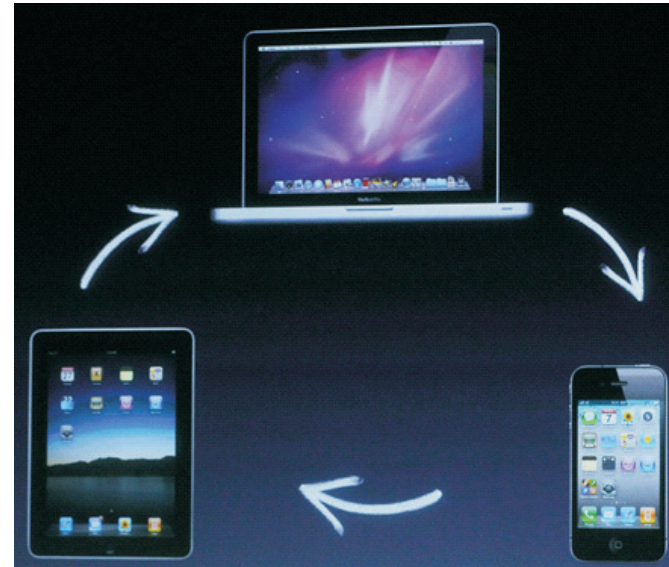
Teacher Resources and Support :

1 Ultrabook with administrative and management software (LMS if you so wish)

1 Samsung Note or in lieu of it ; a good phone and a graphic tablet

1 Teacher 5 learning nodes ; scalable to 1 teacher

25 learning nodes or a number of students sharing one device. We have seen that upto 5 persons can easily and meaningfully share a single access device. Thus even with 1+5 , a teacher can teach a class of 25.



Connectivity:

- Reliance/Photon 3 G data card
- Mi-fi router upto 5 devices simultaneously.
- Alternatively server : Seagate Goflex Satellite :
www.seagate.com/goflexsatellite
- Charging: Connectors to charge several devices simultaneously



CONNECT UP TO 5 DEVICES AT ONCE

Learner Devices:

- iPad2; Samsung; Sony; Reliance; ClassPad; Aakash

Need for some rapid setup of enclosures to protect from wind and glare of the sun.

Learner environment can be either uniform (Indigo Airlines model) or diverse like above.

Sciencelabs with Tabs

A ScienceLab on a Tablet allows for real-time sensor-based data collection and analysis on the Handheld device for the flexibility of science--anytime, anywhere. It can support a wide range of displays and analysis tools:

- Graphs
- Digits
- Meters
- Statistics

Just connect any of a range of Sensors via a wireless sensor interface, to the Tablet.

Such a ScienceLab on the Tablet is designed for scientific inquiry in biology, chemistry, earth science, environmental science, physics, and physical science by allowing users to collect and analyze data using any of the many available sensors.

We can help the Science Teachers to use these to design a number of interesting experiments that cover the concepts and theories that are being taught to the students as part of the Science Curriculum, and also bring the learners upto date with methods of capturing, processing and presenting the data to draw proper scientific conclusions.



LearnPad™, LearnTab™ and the 5 levels of such Devices

Useful for all ages: School to Adults

Instant Content Search

LIVE Learning Guidance

Mastering Maths Program

Voice Support In English, Hindi & Regional Languages

Programs for Employability

English Language Learning Suites

Learning 221

5 Levels of such Devices

<p>LEVEL - 1</p> <ul style="list-style-type: none"> Minimal Learning Features Mostly from Website How to use Handhelds for Learning (1/2 day tutorial) 	<p>LEVEL - 2</p> <ul style="list-style-type: none"> All Features of Level 1 (*) <p>PLUS:</p> <ul style="list-style-type: none"> Some pre-loaded Apps Useful sites saved on favourites Weekly updates (pre-paid) 	<p>LEVEL - 3</p> <ul style="list-style-type: none"> All Features of Level 2 (*) <p>PLUS:</p> <ul style="list-style-type: none"> Pre-loaded General Purpose Learning Apps (free as well as paid)
<p>LEVEL - 4</p> <ul style="list-style-type: none"> All Features of Level 3 (*) <p>PLUS:</p> <ul style="list-style-type: none"> Pre-loaded curriculum based Apps (Maths, Science, Social Science) 	<p>LEVEL - 5</p> <ul style="list-style-type: none"> All Features of Level 4 (*) <p>PLUS:</p> <ul style="list-style-type: none"> Personal remote tutor Coaching / Mentoring by a Community of high achievers 	

"Education on the move, while providing the best Learning experiences to be found anywhere in the world." – Prof. M.M. Pant

LIVE Learning™

GET WORLD'S BEST EDUCATIONAL
DIAGNOSTIC AND NAVIGATION
SYSTEM FOR YOURSELF NOW!



LearnTAB™



PORTABLE LEARNING

Screen Size : 7 inch (LCD)

Resolution : 800 × 480

Platform : Android 2.3 Gingerbread

Processor : 1.2 Ghz "triple core"

Internal Memory : 4 GB, support upto 32 GB

RAM : 512 MB

Connectivity : Wi-Fi, external 3G dongle support

Camera : 1.3 MP front camera

Battery life: 4 hrs.

Weight : 400 grams

LearnPAD™

KNOW EVERYTHING. LEARN ANYWHERE



IN-DASH LEARNING PROGRESS

Screen Size : 10 inch (LCD)

Resolution : 1024 × 600

Platform : Android Honeycomb 3.1

Processor : Unknown

Internal Memory : 16/32/64 GB

RAM : 512 MB

Connectivity : Wi-Fi, 3G, GPS

Camera: 0.3 MP

Battery life: 8 hrs.

Weight : 675 grams

Language Lab on Tabs

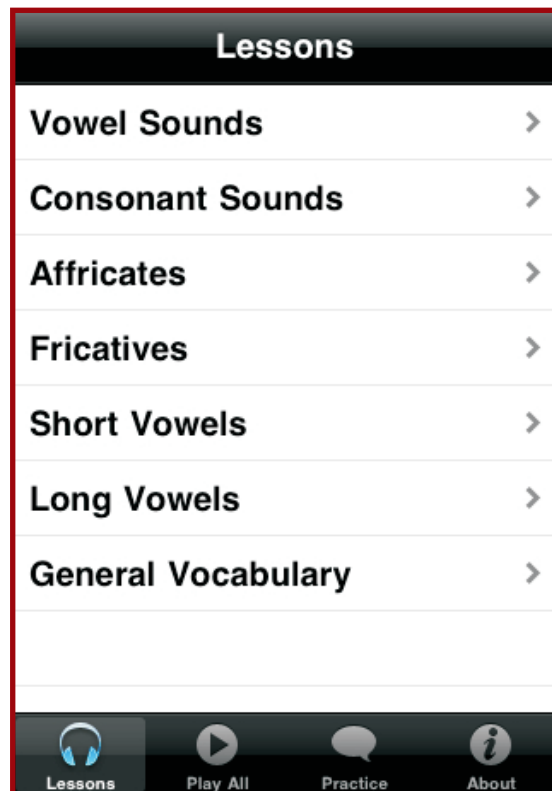
There are a number of solutions available for learning English in a dedicated Language Laboratory.

With the availability of Tablets for every Learner, the need for a dedicated Language Laboratory disappears, and the Tablet in the hands of the learner becomes a tool for language learning.

In addition to the tools and software to improve reading and writing skills, the Tablet holds out promise of improving Listening and Speaking Skills as well.

The practical skills learnt with the LanguageLabs can be used to take tests and get certified by Cambridge University to the appropriate level, ranging from young learners to adults and professionals.

We can help the English Teachers of the School to implement this LanguageLab, as also to get certified as an English Language Teacher with a Cambridge University Certification.



Curating and Creating Apps for Learning

One of the major forms of content on Tablets and Mobiles is the App.

Apple had a slogan "**There's an App for that**" conveying that for almost anything that one may want to do, would have an App on the iPhone or iPad.

Now with almost half a million Apps for the IOS and a slightly smaller but similar number for Android Apps, teachers and learners have a lot of choice in using Apps for learning. The first and foremost role of teachers is to annotate and comment on the usefulness of an App in a specific learning context. This is curation. And when the teacher feels that certain Apps need to be created, and are not readily available, the teacher can get involved with creation of such Apps.



Fortunately creation of Apps now is not confined to a computer programmer, but tools exist such that almost any teacher willing to learn a few steps can create useful Apps, and share with the rest of the world.

Apart from having a short session on this topic in our general Live Learning Programmes for Educators, we have short focused programs in this area for teachers.



Using Tablets for Effective Self-learning by Students

Nominal Duration: 10 hours

Pre-workshop: Advance Reading materials, web-links and YouTube videos (about 2 hours)

An Instructor led workshop (4 hours duration) : structured as 4 sessions of 60 minutes each

1. Attributes and Skills of a Self-directed Active Learner.
2. Tools and Techniques for Seeking Learning Resources
3. Open Education Resources
4. Collaborative and Co-operative Learning with Social Media

The 4 sessions would have a common thread running through them, with the objective of creating a personalised 'course kit' .

This half-day workshop would be followed by a mini-project (nominally of 4 hours duration) which may be either:

- A ' course-kit' that is customised for the learner for any given ' course curriculum topic'

OR

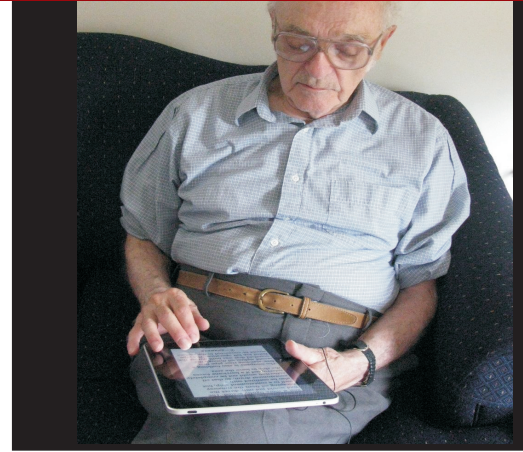
- An educational App idea that is also implemented using a simple tool



Learning 221™

Group A : Life-long Learning

A1.Learning for Success	50 hours
A2.Learning to Think	50 hours
A3.Becoming a 21st Century Educator	50 hours
A4.Leadership at Work	50 hours
A5.Enlightened Parenthood	50 hours
A6.The Pursuit of Happiness	50 hours



Group B : The Hexagon of Success

B1. Leadership 101: Lead and not follow	10 hours
B2. Futurology 101: Anticipating the Future	10 hours
B3. Decision Making 101: Taking Better Decisions	10 hours
B4. Creativity 101: Everyday Creativity	10 hours
B5. Ethics 101: Nurturing an Ethical Mind	10 hours
B6. Innovation 101: Becoming a Serial Innovator	10 hours

Group C : The Long Tail

C1. Asking the Right Questions?	1 hour
C2. 21st Century Learning Tools	10 hours
C3. Learning Analytics	10 hours
C4. The Art and Technology of Digital Story telling	1 hour; 10 hours; 30 hours
C5. Pre-natal, Neo-natal and Pre-School learning	1 hour; 10 hours; 30 hours
C6. Quantum Computing: The next Frontier	1 hour; 10 hours; 30 hours
C7. 21st Century Managers Toolkit	100 hours
C8. The Edupreneurs Toolkit	100 hours
C9. From 'No' English to 'Know' English	100 hours
C10. Academic Skills for 21st Century Higher Education	100 hours
C11. MSI (Measures, Scales and Instruments) for Creativity, Innovation, Learning, Information Literacy, Financial Literacy etc.	130 hours



LEARNING RAMPS™ for Mastering Maths

ABOUT THE PROGRAM

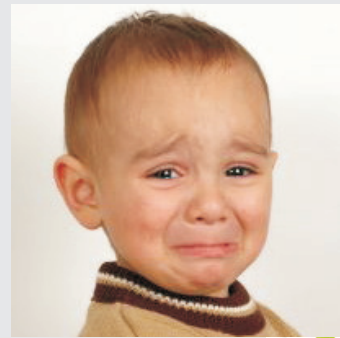
This program, probably one of its kind, is a result of seeking an understanding a rather common phenomenon. The fact that many persons find it extremely challenging to learn mathematical concepts, procedures and facts, although they have a high level of general intelligence that is demonstrated in other aspects of their lives has been known for a fairly long time.

The field of medical treatment continually progresses, because the outcomes of medical research are applied to medical practice. But the outcomes of educational research lie buried in libraries, research journals and Ph.D. theses.

The field of Mathematical Learning disability is about 20 years old, and much knowledge of has accumulated in response to the central question of the field "Why is that some people are better at learning Mathematics, than others?".

The Mastering Maths Program draws upon this body of research and class-room experiences of a number of very experienced teachers to develop this unique program, which is about learning maths, and moving through the stages of 'Maths Phobia' to 'I love learning Maths' to 'Fascinated by Maths' onward to 'Mastering Maths'.

Once the nitty gritty of Mastering Maths has been done, there are programs on the 'omnipresence of Maths', on '21st Century Maths' in a post computer world and finally when the learner is ready, a program on the 'Soul and Beauty of Maths'.



CONTENT HIGHLIGHTS

- ▶ About the Program
- ▶ Delivery Model
- ▶ Overcoming Maths Phobia
- ▶ Fascinating Maths and I love Learning Maths
- ▶ Mastering Maths
- ▶ Omni present, 21st Century & the Soul & Beauty of Maths
- ▶ Learning 221



ABOUT THE PROGRAM

This program has been designed to respond to the urgent and immediate need to train a very large number of teachers to effectively adopt new teaching and learning models appropriate for the future. Many learners will have access to devices with access to Mobile Internet and can become exploratory and active learners.

The most important subjects of English Language, Mathematics and Science can be taught in a bore engaging and effective manner with enthusiastic and involved teachers.

The chief architect and mentor of the Program is **Prof.M.M. Pant** a *sui generis* personality with almost 50 years experience in Scientific Research, Teaching, Management, Law, Information Technology and Business Entrepreneurship. He is supported in this mission by a network of very accomplished persons with excellent academic credentials and diverse national and international experience who have agreed to provide inputs, guidance, conduct interactive sessions and mentor the prospective learners to achieve their full potential.



Prof. M.M. Pant (www.mmpant.net) is an internationally renowned expert specialising in pedagogy, technology and the development of tools and curricula for 21st century education.

He has been known for developing, working models that enhance the pedagogy using latest available technologies. He is especially noted for his efforts in leveraging social media for improving learning and bringing the mobile and handhelds into the classroom where they have been traditionally banned.

Prof. Pant's current work and interests revolve around the development, delivery and promotion of educational products, processes and services that cater for the needs and interests of future learners, a framework that is named "**Learning 221™: Learning for the 2nd Decade of the 21st Century**".

His past roles include being the Former Pro-Vice Chancellor, Indira Gandhi National Open University (IGNOU) and being on the faculty of IIT, Kanpur (the premier engineering institution in India), MLNR Engineering College and Faculty as well as Visiting Professor, University of Western Ontario, Canada. He has been a visiting scientist at European research centres in Italy, England, Germany and Sweden.

Prof. Pant is the founder of the LMP Education Trust, an organisation that promotes new age learning and supports underprivileged learners.

For any further Information, Contact:

Prof. M.M. Pant
E-mail: Professor@MMPant.in
Cell: +91 - 98100 73724
Web: www.mmpant.net

Address
101, Greenwood Plaza, Greenwood City
Sector - 45, Gurgaon - 122 001 (HARYANA)