

## **RESEARCH TOOL FOR TEACHERS**

**Department of Extension and Communication  
Faculty of Family and Community Sciences  
The Maharaja Sayajirao University of Baroda, Vadodara**

Respected Sir/Madam

I am a Ph. D student in the Department of Extension and Communication, Faculty of Family and Community Science, The Maharaja Sayajirao University of Baroda, Vadodara. I am doing my Ph. D research on **“Information and Communication Technology in Higher Education.”** In this regard I have prepared a questionnaire and you are chosen as respondent to fill the questionnaire of my research.

I assure you that your information will be kept strictly confidential and will be used for research purpose only. The success of my study depends on your kind cooperation.

Thanking you,

Yours faithfully,

Dr. Avani Maniar  
Guide & Associate Professor  
Department of Extension and Communication  
Faculty of Family and Community Sciences  
The Maharaja Sayajirao University of Baroda  
Vadodara

Ms. Krutika Bhate  
Investigator

## SECTION I

### Background Information

Please read carefully and give the following information by tick marking (✓) or writing wherever necessary against the statements applicable to you.

1. Name of the Faculty: \_\_\_\_\_
2. Name of the Department: \_\_\_\_\_
3. Age (in Years): \_\_\_\_\_
4. Sex:   a) Male \_\_\_\_\_  
          b) Female \_\_\_\_\_
5. Designation:  
      a) Professor \_\_\_\_\_  
      b) Associate Professor \_\_\_\_\_  
      c) Assistant Professor \_\_\_\_\_  
      d) Temporary Assistant Professor \_\_\_\_\_  
      e) Temporary Teaching Assistant \_\_\_\_\_

6. Total Years of Experience: (Including Temporary Services)

	In the M. S. University	Other than the M.S.University
a) Teaching	_____	_____
b) Research	_____	_____
c) Other Related Experience	_____	_____

7. Please mention the availability of following ICT resources in your Department

Sr. No	ICT resources	Available		
		In the teachers cabin	In the Classrooms	In other Common Area
1	A desktop computer			
	a) without an internet connection			
	b) with an internet connection			
3	Scanner and Printer			
4	Interactive whiteboard			
5	LCD Projectors			
6	Smart TV			
7	University Wi-Fi			
	Any Other (pls. specify):			

8. Which method have you adopted to learn computer and internet?

Sr. No	Method	Computer	Internet
1	Trial and Error Method		
2	Guidance from colleagues and friends		
3	Training from college		
4	Self instruction		
5	External courses		
6	Online tutorial		

9. Have you completed any Degree/Diploma/Certificate course related to computer? (like CCC, C++ etc.)

a) Yes \_\_\_\_\_

b) No \_\_\_\_\_

9 (a) If yes, then please give the information of the course

<b>Sr. No</b>	<b>Name of the course</b>	<b>Type of the course Degree/Diploma/Certificate</b>	<b>Online/Regular</b>	<b>Duration</b>
1				
2				
3				
4				

10. Have you attended any training programme/workshop on ICT? (Like use of e-resources, use of ICT in education etc.)

a) Yes \_\_\_\_\_

b) No \_\_\_\_\_

10.(a) If yes, then please provide the details in following table.

<b>Sr. No</b>	<b>Name of the Training Programme/Course Attended</b>	<b>Organized by</b>		<b>Duration</b>
		<b>The M. S. University</b>	<b>Other Institute</b>	
1				
2				
3				
4				
5				
6				

## SECTION – II

### Usage of ICT

Following are some statements related to the usage of ICT. Please read carefully and give information by tick marking (✓) or writing whenever necessary in the space provided.

1. How often do you use desktop/laptop?
  - a) Daily \_\_\_\_\_
  - b) 2-3 days in a week \_\_\_\_\_
  - c) Once in a week \_\_\_\_\_
  
2. How many hours do you spend on a desktop/laptop (without internet) in a day for professional work?
  - a) Less than 2 hours \_\_\_\_\_
  - b) 2-4 hours \_\_\_\_\_
  - c) More than 4 hours \_\_\_\_\_
  
3. How do you access the internet (on desktop/laptop only) in the campus for professional work?
  - a) University Wi-Fi \_\_\_\_\_
  - b) Mobile Data \_\_\_\_\_
  - c) Dongle \_\_\_\_\_
  - d) Broadband \_\_\_\_\_
  - e) Any other \_\_\_\_\_
  
4. How many hours do you spend on internet for professional work per day?
  - a) More than 5 hours \_\_\_\_\_
  - b) 4 to 5 hours \_\_\_\_\_
  - c) 2 to 3 hours \_\_\_\_\_
  - d) Less than 1 hour \_\_\_\_\_
  
5. Do you need any help for using ICT?
  - a) Yes: \_\_\_\_\_
  - b) No: \_\_\_\_\_

If yes, than form whom you take the help and for what specific task you need a help.

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6. Beside Teaching and Research, you must be performing duties at various levels (University, Faculty, and Department) as coordinator(s) (Convenor/Representative/or member of the committee). To perform the duties/tasks assigned for the same, do you use ICT like computer/internet? Please mention the name of the committee or duty you are assigned and tick mark accordingly if you use ICT for it.

Sr. No	Duties Assigned at University/Faculty/Department Level	Use of ICT
1	University Level Duties 1. 2. 3. 4. 5.	
2	Faculty Level Duties 1. 2. 3. 4. 5.	
3	Department Level Duties 1. 2. 3. 4.	

7. Which computer accessories do you use while using computer and internet?

Web camera		Pen drive	
Digital camera		Hard disk	
Scanner		Wireless mouse	
Printer		CD copy writer	
Speaker		Mouse pad	
Gamepad		Joystick & Projector	
Graphic tablet		Cables and connectors	
Microphone and Headsets		PC Microphones	

8. How often do you use E-Resources available on website of the Hansa Mehta Library for your teaching and research work? Please tick [√]

M: if you use it frequently (Once or twice in a month)

S: If you use it sometimes. (As and when required)

R: If you use it Rarely/Never.

Sr. No	E-Resources	Teaching			Research		
		M	S	R	M	S	R
1	J-Gate						
2	Organization for Economic Cooperation and Development (OECD) Library						
3	World Bank Open Data						
4	International Monetary Fund (IMF) e-library						
5	ProQuest Dissertations and Theses (PQDT)						
6	Global Periodicals						
7	Science Magazine						
8	World e-book library						
9	South Asia Archive						
10	e-shodhsindhu						
11	Open Knowledge Gateway (OKG)						
12	Virtual Library						
13	Open Archives						
14	E-Resources						
15	Any other (Please Specify)						





Sr. No	ICT Resources	Teaching			Research			Administration		
		M	S	R	M	S	R	M	S	R
	5. Designing Software									
	a) Corel Draw									
	b) Auto CAD									
	c) Photoshop									
	d) Flash									
12	<b>Any other (please specify)</b>									

10. How often do you use following internet based ICT resources in your teaching, research work? Please tick [√]

M: if you use it frequently (Once or twice in a month)

S: If you use it sometimes. (As and when required)

R: If you use it Rarely/Never.

Sr. No	ICT Resources	Teaching			Research		
		M	S	R	M	S	R
Information Resources							
1	Webgraphy						
	a) Online journal articles						
	b) Conference papers						
	c) Documents produced by institutions						
	d) E-books						
	e) E-journals						
2	Virtual Encyclopedias						
	a) Wikipedia						
	b) Wikiversity						
	c) WikiEducator						
3	Online Database						

Sr. No	ICT Resources	Teaching			Research		
		M	S	R	M	S	R
4	Web 2.0 Tools						
	a) Social bookmarks						
	b) YouTube						
	c) Slideshare						
	d) TeacherTube						
<b>Collaborative Resources</b>							
1	Distribution list (Google groups)						
2	Collaborative groups (research gate, academia.edu)						
3	Blogs						
4	Seminar on the web (Webinar)						
5	Virtual Communities (LinkedIn)						
<b>Learning Resources</b>							
1.	Repositories (educational resources)						
2	Online questionnaire						
3	Audio classes (podcast)						
4	Open Course Ware (online courses)						
<b>Reference managing and data storage Software</b>							
1	Google Drive						
2	Zotero						
3	Dropbox						
4	EndNote						
5	Mendeley						
6	Evernote						
7	Refseek						
<b>Any other (Please Specify)</b>							

## SECTION – III

### Opinions about ICT

Following are the statements regarding opinions about the usage and integration of ICT in Higher Education. Please tick [√] on an appropriate option which describes your opinion about the ICT.

GE: If you agree at great extent.

SE: If you agree at some extent.

LE: If you agree at less extent.

Sr. No	Opinions Regarding Use and Integration of ICT in the Higher Education	Great Extent	Some Extent	Less Extent
1	Improves the quality of teaching			
2	Essential to prepare students to live and work in the 21st century.			
3	Makes teacher more encouraged, interested and involved in working with their students.			
4	Raise working efficiency of a teacher as a teacher.			
5	Makes teaching more effective			
6	Enhances teacher's role, and makes him/her more professional.			
7	Makes the lectures more interesting and diverse.			
8	Disseminates information amongst the students more effectively.			
9	Gives an opportunity to the students to learn more.			
10	Facilitates teaching strategies.			
11	Helps in producing varied teaching materials like pamphlets, booklet.			
12	Positively changes the learning climate in a lecture room.			
13	Makes communication between teacher and students easier.			
14	Makes the course content more lively in the class.			
15	Limits students thinking.			

<b>Sr. No</b>	<b>Opinions Regarding Use and Integration of ICT in the Higher Education</b>	<b>Great Extent</b>	<b>Some Extent</b>	<b>Less Extent</b>
16	Makes calculations and manipulations easier. (like copy and paste of the content)			
17	Gives superficial knowledge to the student.			
18	Cannot judge gain in knowledge of the students.			
19	Makes the lesson less effective compared to regular lesson.			
20	Encourage students to explore situations and more information			
21	Make students enthusiastic for learning.			
22	Is limited as teachers do not have enough time to integrate ICT in their teaching.			
23	Needs to be used along with other teaching formats.			
24	Limits the freedom of a teacher in terms of content delivery.			
25	Needs a complete change in teaching style of a teacher.			
26	Needs clarity about how to integrate it in teaching learning.			
27	Any other (please specify)			

## SECTION – IV

### Competency in Using ICT

Following are the statements regarding competencies in using different ICT resources. Please tick [√] on an appropriate option which describes your competency in using different ICT resources.

Sr. No	Competency in Using ICT	Alone without any one's help	With some one's help	Do not know
<b>Hardware Related Competency</b>				
	<b>I can</b>			
1	Use printer			
2	Install USB drive			
3	Connect printer with other devices (like mobile)			
4	Use smart boards			
5	Solve simple problems (like paper jam in printer)			
6	Connect LCD projector with laptop			
7	Connect internet from mobile to laptop			
8	Connect web camera with desktop/laptop			
9	Connect speakers with laptop/desktop			
<b>Software Related Competency</b>				
	<b>I can</b>			
10	Install new software			
11	Remove virus			
12	Prepare Power Point Presentation			
13	Prepare word document			
14	Prepare Spread Sheets			
15	Use graphic software			
16	Zip/Unzip files/folders			
17	Prepare Graphs			
18	Prepare Infographics			
19	Add hyperlink			

Sr. No	Competency in Using ICT	Alone without any one's help	With some one's help	Do not know
<b>Internet Related Competency</b>				
	<b>I can</b>			
20	Use data storage software (like Google drive, Drop box)			
21	Design technology enhanced learning material for students (like online course, website)			
22	Download online videos			
23	Save videos offline			
24	Upload lectures/videos online			
25	Use internet for communication			
26	Contact other teachers and researchers online			
27	Conduct virtual classes			
28	Search material online (like e-books, e-journals)			
29	Upload data on Annual Report Management System			
30	Download blank mark list from university website			
31	Check circulars on university website			
32	Use intranet			
33	Please specify if any other			

## SECTION - V

### Integration of ICT

ICT can be integrated into Teaching, Research, and Administrative work at different extent. Specify at what extent you integrate the ICT in your Teaching, Research, and administrative work.

GE: If you integrate ICT at great extent.

SE: If you integrate ICT at some extent.

LE: If you integrate ICT at less extent.

Sr. No	Item	Great Extent	Some Extent	Less Extent
<b>Integration of ICT in Teaching</b>				
1	Browse/search the internet to collect information to prepare my class lectures			
2	Browse/search the internet to collect resources to be used during my class lectures (like videos, slides)			
3	Prepare presentations for my class			
4	Create customized digital learning materials for my students (e.g e-content, video, slides)			
5	Prepare evaluation exercises/self evaluation exercise for students on a computer (like quiz, online test)			
6	Post online assignment for students (eg. On Google Classroom, e-mail)			
7	Provide feedback to my students related to their performance through ICT (eg. Like send message on WhatsApp, e-mail,)			
8	Update myself by joining online professional development courses.			
9	Participate in a discussion forum on the internet related to my subject of interest.			
10	Write blog on my subject.			
11	Participate in online social networks of the teachers			

Sr. No	Item	Great Extent	Some Extent	Less Extent
12	Refer material on Hansa Mehta Library portal to prepare my notes.			
13	Give assignment to students based on Hansa Mehata Library reference work. (like search of e-journals, e-books, archives).			
14	Integrate new software (like Prezi) in teaching			
15	Use online applications to connect with my students (like e-mail, Google Hangouts, WhatsApp, Skype)			
16	Design online course related to my subject.			
<b>Integration of ICT in Research</b>				
1	Refer online books/journals to write review, articles, books			
2	Discuss/share/solve quarries of research work through online researchers group (like Research Gate, Academia Edu.)			
3	Collect information related to research topic through online database.			
4	Refer material available on Hansa Mehta Library Portal for review of literature. (like e-journals, e-books, OKG)			
5	Refer online thesis/projects for research (eg. Shodhganga, Shodhgangotri)			
6	Prepare citation through reference managing software (like Mendeley, Zotero)			
7	Collect data through online data collection software (Ex. Google forms, surveymonkey.com)			
8	Store research data and other important documents online (like on Google Drive or Dropbox)			
9	Refer material from specific research related websites (like Springer, J-Gate, Science Direct)			
10	Check plagiarism through software like Urkund.			



<b>Sr. No</b>	<b>Item</b>	<b>Great Extent</b>	<b>Some Extent</b>	<b>Less Extent</b>
11	Check grammar through software like Grammarly, thesaurus.com			
12	Check and use style manual online.			
13	Search and approach funding agencies online.			
14.	Prepare and submit research proposal to funding agencies through ICT.			
<b>Integration of ICT in Administrative work</b>				
1	Use computers for recruitment and work allotment to staff in the department			
2	Prepare self appraisal on computer			
3	Circulate circulars through ICT amongst the colleague (eg through e-mail, WhatsApp)			
4	Download and upload circulars from the university website regarding official matters			
5	Upload annual report online			
6	Download professional and legal documents (like 16A form, online appointment letters)			
7	Download blank mark list from University website for result submission			
8	Intimate staff about forth coming events through e-mail			
9	Intimate about meetings to the staff and colleague through ICT			
10	Follow the government website to check new policies related to higher education.			
11	Participate in online groups of the M. S. University teachers.(like WhatsApp, Google Group)			
12.	Coordinate with other faculty teachers for administrative work (like meeting at university level)			

## SECTION - VI

### Problems in the Integration of ICT

Do you face any problem while integrating ICT in Teaching, Research, and administrative work? Following are some problems listed related to integration of ICT in teaching, research and administrative work. Please specify to what extent you face these problems while integrating ICT.

GE: If you agree it at great extent.

SE: If you agree it at some extent.

LE: If you agree at less extent.

Sr. No	Statements	Great Extent	Some Extent	Less Extent
<b>Non Human Resources related problems</b>				
1	Insufficient number of computer in the department for teaching			
2	Non-availability of the computer lab in the department			
3	Insufficient number of internet-connected computers in the department			
4	Insufficient internet bandwidth or low speed internet connection			
5	Insufficient number of the smart boards in the classroom			
6	Interactive white board are not working			
7	Computers needs repairing/outdated.			
8	The computer software's are not updated.			
9	Non availability of LCD projectors in all the classrooms.			
10	Lack of money to buy latest ICT.			
11	Poor/lack of robust and effective ICT policy.			
12	Relevant content related to subject is not available on the internet			

<b>Sr. No</b>	<b>Statements</b>	<b>Great Extent</b>	<b>Some Extent</b>	<b>Less Extent</b>
13	Department computer is not supported by certain software (like SPSS)			
14	Downloading certain application/software is restricted in University Wi-Fi			
15	Certain important websites are blocked in University Wi-Fi			
16	University Wi-Fi is slow, so takes time to download the content from internet			
17	Please Specify if Any Other			
<b>Human Resources Related Problems</b>				
1	Insufficient support from technical staff for integrating ICT in class			
2	ICT integration in teaching is not appreciated by the authorities			
3	Insufficient training provided by the university for integrating ICT in teaching			
4	Students do not want to learn through ICT			
5	I do not know how to use smart boards			
6	I have no clear idea about integration of ICT in teaching			
7	I do not have enough skills for integrating ICT in teaching			
8	I am unable to prepare ICT based content in English			
9	I am not interested in integrating ICT in teaching			
10	I face problem in finding relevant journal, book related to my topic from Hansa Mehta Library Portal			
11	I face problem in using every icon available on Hansa Mehta Library Portal			

<b>Sr. No</b>	<b>Statements</b>	<b>Great Extent</b>	<b>Some Extent</b>	<b>Less Extent</b>
12	Insufficient training is given on accessing material through H. M. Library Portal			
13	I am unable in using online application/software in my research (like Mendeley, Google forms)			
14	Scarcity of authentic Indian resources			
15	I am unable to contact other researchers online			
16	I do not understand, how to upload an annual report online			
17	Uploading document online during promotion made my task more difficult			
18	Downloading of blank mark list is time-consuming			
19	Uploading online data is time-consuming (like ARMS, IQAC report etc)			
20	Online application restrict me to upload certain data (like details of publications, duties performed etc)			
21	I face problem in uploading attachments (eg. Pictures) in ARMS			
22	I find it time consuming to regularly check the university website for any circulars or notice.			
23	Please Specify if Any Other			

## SECTION – VII

### Influence of ICT

After integrating ICT in Teaching, Research, and Administrative work what are the influences you found in above-mentioned professional work and at what extent. Please specify the extent of influence by tick [√] marking against the statements.

GE: If you agree it at great extent.

SE: If you agree it at some extent.

LE: If you agree at less extent.

Sr. No	Statements	Great Extent	Some Extent	Less Extent
<b>Influence of ICT on Teaching</b>				
	<b>Due to the Use of ICT</b>			
1	My lecture preparation time has reduced.			
2	My lectures are more interesting to my students.			
3	My students participate more efficiently in my class			
4	I am encouraged for teaching more enthusiastically in the class			
5	My working efficiency as a teacher is raised.			
6	I am producing effective teaching material for class like pamphlet.			
7	My course content becomes live in the class (like sharing of pictures and videos through PPT).			
8	My physical visit to the library for gathering content related to my subjects is restricted.			
9	My lecture becomes monotonous.			
10	The way students learn in my class is changed. (more active and attentive)			
11	My students cut and paste the material provided by me to them.			
12	My teaching satisfaction is raised.			
13	Share my teaching notes easily to my students.			

Sr. No	Statements	Great Extent	Some Extent	Less Extent
<b>Influence of ICT on Research</b>				
	<b>Due to the use of ICT</b>			
1	My research work becomes easier (like quick access of other university library material).			
2	My research work becomes faster (like quick data analysis through data analysis software)			
3	Writing review of literature becomes very fast (through online resources)			
4	I came in contact with other researchers, who are working in the same research area.			
5	I can clarify my research related confusions through online discussion with other researchers.			
6	My frequent visit to the library is reduced.			
7	My data collection from distance becomes easier through web based data collection applications.			
8	My data collection process becomes tedious as sample does not fill online forms timely.			
9	My referencing work becomes more easy and fast through reference managing software.			
10	I do not get authentic online material related to my research.			
11	Storage of my large research data becomes easier.			
12	Access of my research data any time and from any place becomes easier.			
13	Submissions of research paper for publication become easier.			
14	Finding and submission of research proposal to funding agency becomes easy.			

Sr. No	Statements	Great Extent	Some Extent	Less Extent
<b>Influence of ICT on Administrative work</b>				
<b>Due to the use ICT</b>				
1	Administration work becomes faster (eg. Result generation, storage of students record)			
2	Availing documents legal/professional becomes easier (taking 16A form)			
3	Privacy is improved through online applications (eg. circular through e-mail)			
4	Value to paperless work is added.			
5	Routine work (eg circulation of circulars/reminder) becomes easier			
6	Coordination with staff members through e-mail/WhatsApp becomes easier.			
7	Work distribution amongst the staff members through e-mail or intranet becomes easier.			
8	Communication with teaching and non teaching staff becomes faster through e-mail.			

## SECTION – VIII

### Suggestions

1. Give the suggestions for improving integration of ICT in teaching by the university teachers.

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2. Give the suggestions for improving integration ICT in research work by the university teachers.

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3. Give the suggestion for improving integration of ICT in administration work by the university teachers.

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Thank you for sparing your time and completing this questionnaire.