

**INDIRA GANDHI NATIONAL OPEN UNIVERSITY****SCHOOL OF SCIENCES****FEEDBACK ANALYSIS REPORT OF SUBJECT EXPERTS****1.0: Preamble**

Indira Gandhi National Open University (IGNOU) was established by an Act of Parliament in 1985, with the objective to disseminate learning by a diversity of means and provide opportunities for higher education to a large segment of the population. Recently, University has been Graded A<sup>++</sup> with a total score of 3.56 on a 4 point scale by the National Assessment and Accreditation Council (NAAC).

From the beginning, the university has been striving towards achieving its mandate by offering high quality, innovative and need based academic programmes to all segments of our society. IGNOU especially focuses on supporting the most disadvantaged social segments academically at affordable cost.

The objective of IGNOU is being met as team effort with IGNOU faculty and subject experts from prestigious universities and higher education institutions across India pooling their knowledge. The external subject experts form an important category of stake holders for obtaining inputs on regular basis. Such inputs are used by the IGNOU faculty towards the design, development and up gradation of the curriculum.

Feedback from the stakeholders is essential for the improvement and development of any system. In the educational system, it not only helps in improving the teaching-learning process, but also helps in updating/restructuring the curriculum as per the needs and requirements of the learners. Feedback analysis mechanism is an essential tool in ensuring the quality assurance of the programmes. Subject Experts are an important stakeholder involved in the designing and development of the curriculum. They are the link between field reality and the learners. Their feedback helps in identifying the gaps in the curriculum particularly the areas that need updating. Experts role is pivotal in the design and development of new programmes and revision of the existing ones.

The unprecedented Pandemic has impacted the teaching- learning process, the world over. Consequently, the University has been trying different alternatives to enrich the academic experience of its learners. Since the lockdown conditions had restricted delivery of the self-learning material (SLM) to the doorsteps of the learners, the University provided soft copy of the SLM through IGNOU eContent Mobile App, eGyankosh and lectures on the YouTube wherever feasible. For providing counselling services, electronic communication channels namely Gyan Darshan, GyanVani,

GyanDhara, and Web-enabled Academic Support (WEAS) were used to reach out to the learners in an effective and best possible effective way. Efforts were made to restore academic counselling by making use of Facebook live, Google Meet, WebEx, Zoom and YouTube. Considering these point we conducted feedback exercise to know how best we can eliminate the potential barriers between the learner and institution by designing, developing/revising and delivering the updated course content.

## **2.0: About the School and Experts Involved**

The School of Sciences started functioning in 1986, with the challenge of imparting good quality theoretical and practical education in four science disciplines, namely, Physics, Chemistry, Mathematics and Life Sciences. In the year 2009, four new disciplines were added to the School, namely, Geography, Geology, Biochemistry and Statistics.

The functions of the School are to:

- a) Plan, develop and offer academic programmes at the certificate, diploma, undergraduate, post-graduate, doctoral and awareness levels.
- b) Encourage research in discipline-based as well as systemic areas.
- c) Collaborate in the development of programmes/courses offered by other Schools of the University.
- d) Provide learner support using electronic media and ICT tools.
- e) Participate in the development and monitoring of student support services.

## **Programmes Currently Offered by the School of Sciences: 31 Programmes**

### **Doctoral Degree**

- Ph.D. in Biochemistry (PHDBC)
- Ph.D. in Chemistry (PHDCHEM)
- Ph.D. in Geography (PHDGEOG)
- Ph.D. in Geology (PHDGY)
- Ph.D. in Life Sciences (PHDLS)
- Ph.D. in Mathematics (PHDMT)
- Ph.D. in Physics (PHDPH)
- Ph.D. in Statistics (PHDSTAT)

**Master's Degree**

- Master of Science in Biochemistry (MSCBCH)
- Master of Science in Chemistry (MSCCHEM)
- Master of Science in Analytical Chemistry (MSCANCHEM)
- Master of Science in Geography (MSCGG)
- Master of Science in Geoinformatics (MSCGI)
- Master of Science in Mathematics with Applications in Computer Sciences (MSCMACS)
- Master of Science in Physics (MSCPH)
- Master of Science in Applied Statistics (MSCAST)
- Master of Science in Zoology (MSCZOO)

**Bachelor's Degree**

- B.Sc. (Hons.) Biochemistry (BSCBCH) under CBCS Scheme
- B.Sc. (Major) Biochemistry ((BSCFBC) under FYUP Scheme
- B.Sc. (Major) Mathematics (BSCFMT) under FYUP Scheme
- B.Sc. (BSCG) under CBCS Scheme
- B.Sc. (BSCM) under FYUP Scheme

**PG and Advance Diploma**

- Post Graduate Diploma in Analytical Chemistry (PGDAC)
- Post Graduate Diploma in Environment and Sustainable Development (PGDESD)
- Post Graduate Diploma in Applied Statistics (PGDAST)
- Post Graduate Diploma in Geoinformatics (PGDGI)

**PG and Advance Certificate**

- Post Graduate Certificate in Geoinformatics (PGCGI)

**Diploma**

- Diploma in Aquaculture (DAQ)

**Certificate**

- Certificate Programme in Laboratory Techniques (CPLT)
- Certificate Programme in Teaching of Primary School Mathematics (CTPM)

**Appreciation Course**

- Appreciation Course on Environment (ACE)

Our Expert Committees, Course Design Committees and Course Writers Committees are representation of distinguished subject experts drawn from renowned universities and higher education institutions representing all regions of the country, and the IGNOU faculty.

### **3.0: Backdrop**

As you are aware, the National Education Policy (NEP) 2020 envisions a transformative shift in the education system, with digital education playing a crucial role in enhancing accessibility, equity, and quality. Recognizing the potential of technology in learning, NEP 2020 emphasizes the integration of digital tools and platforms to create a flexible, inclusive, and learner-centric education system. Addressing the digital divide, NEP 2020 advocates for the development of digital infrastructure, e-content, and teacher training in online pedagogy. The policy underscores the role of Open and Distance Learning (ODL) in expanding educational opportunities, in which IGNOU plays a pivotal role in implementing digital education strategies.

### **4.0: Objectives**

The objectives of the study were to:

- Gather insights on how well ICT tools and platforms are enhancing the quality and effectiveness of academic counseling sessions for both learners and counselors.
- Understand the difficulties faced by stakeholders in using ICT for academic counseling and identify specific areas where the integration can be improved.
- Use the feedback to guide decision-making, refine strategies, and develop policies that support the successful implementation of ICT in ODL academic counseling.
- Ensure that the integration of digital tools meets the needs of diverse learners, making academic counseling more accessible, interactive, and learner-centric.

### **5.0: Tools and Techniques**

The feedback form was sent to the Subject Experts who had participated in Programme Expert Committee meetings, Course Design Committee meetings, Course Writers' Committee meetings. Responses were received from 20 subject experts and then analyzed.

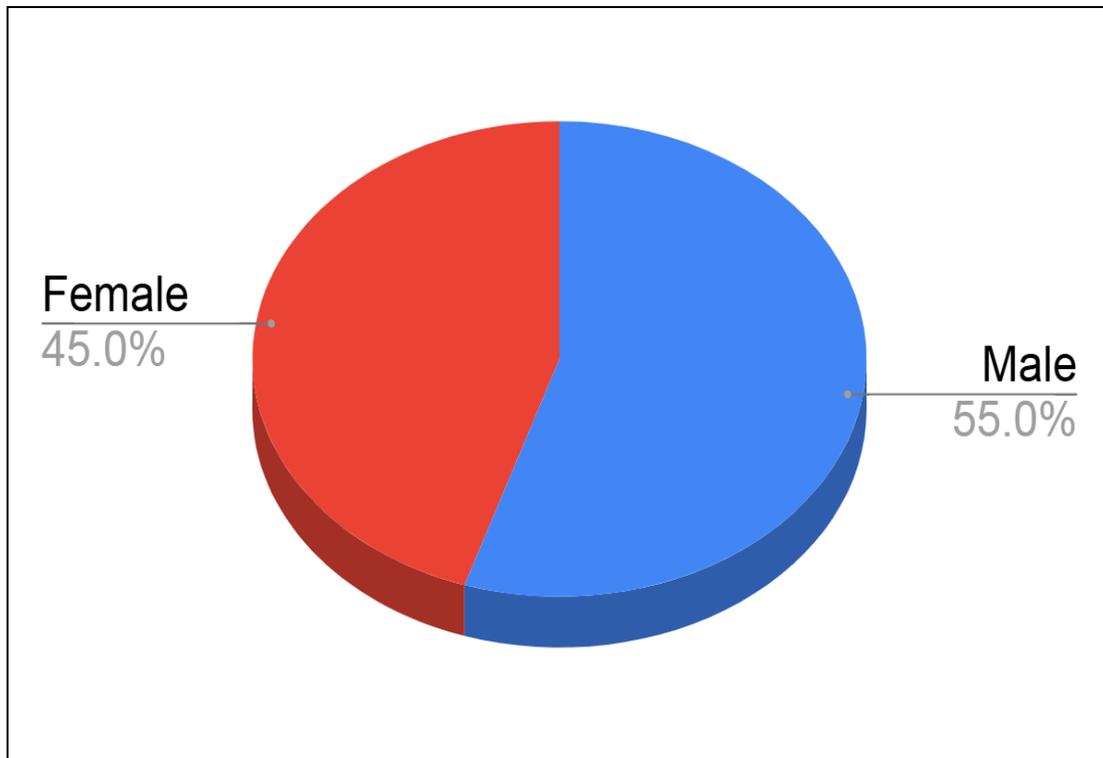
### **6.0: Findings**

The responses have been compiled and analysed. These are presented through tables and diagrams given in in this section, which are self explanatory.

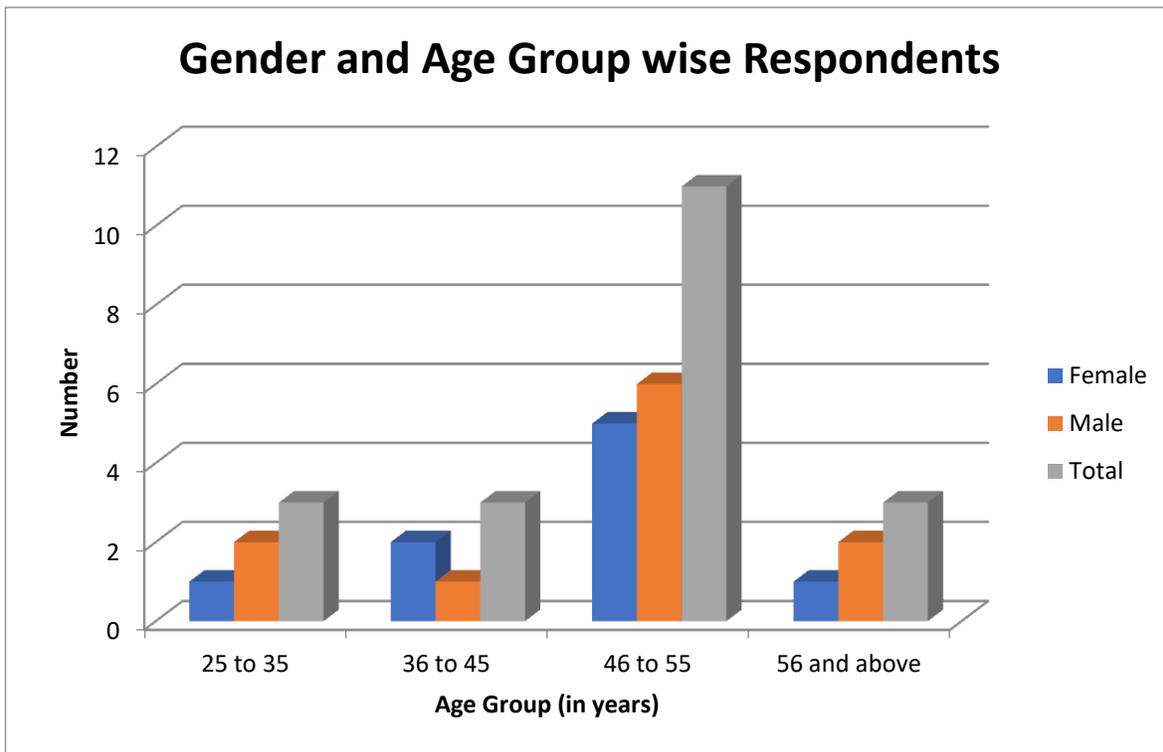
**1. Subject Experts**
**Table 1: Subject Experts by Institutions**

S. No.	Name of the Experts	Institution
01	Prof. Antresh Kumar	Central University of Haryana
02	Dr. Neeti	Azim Premji University
03	Dr. Shivangi Sharma	ARSD College, Delhi University
04	Dr. Babita Goyal	Ramjas College, University of Delhi
05	Dr. Gunjan Khurana	I. P. College for Women
06	Dr. Kanchan Sharma	IGDTUW
07	Mr. Shashi Kumar	PMIDC, Govt. of Punjab
08	Dr. Pijus Kumar Sasmal	Jawaharlal Nehru University, New Delhi
09	Dr. Debasri Dey	Brainware University
10	Dr. Parthasarathi	Maharaja Agrasen College University of Delhi
11	Dr. Dilip Kumar Ghosh	Saurashtra university Rajkot
12	Prof Ram Kishan	D.A.V.(P.G.) College, Muzaffarnagar
13	Analytics (name submitted by the expert through Google form)	IMT CDL Ghaziabad
14	Dr Rohit Kumar	OP JINDAL GLOBAL UNIVERSITY
15	Mr. Rohitash Kumar	IGNOU, New Delhi
16	Dr Archana Chaudhary	Shree Guru Gobind Singh Tricentenary University
17	Dr Shanuja Beri	Kalindi College University of Delhi
18	Dr. Kuntal	Gargi College, University of Delhi
19	Dr. Rattan K. Datta	DST & now MERIT
20	Dr. Manoj Kumar Srivastava	ICAR-Indian Institute of Sugarcane research, Lucknow

Subject experts are from diverse institutions as given in Table 1.

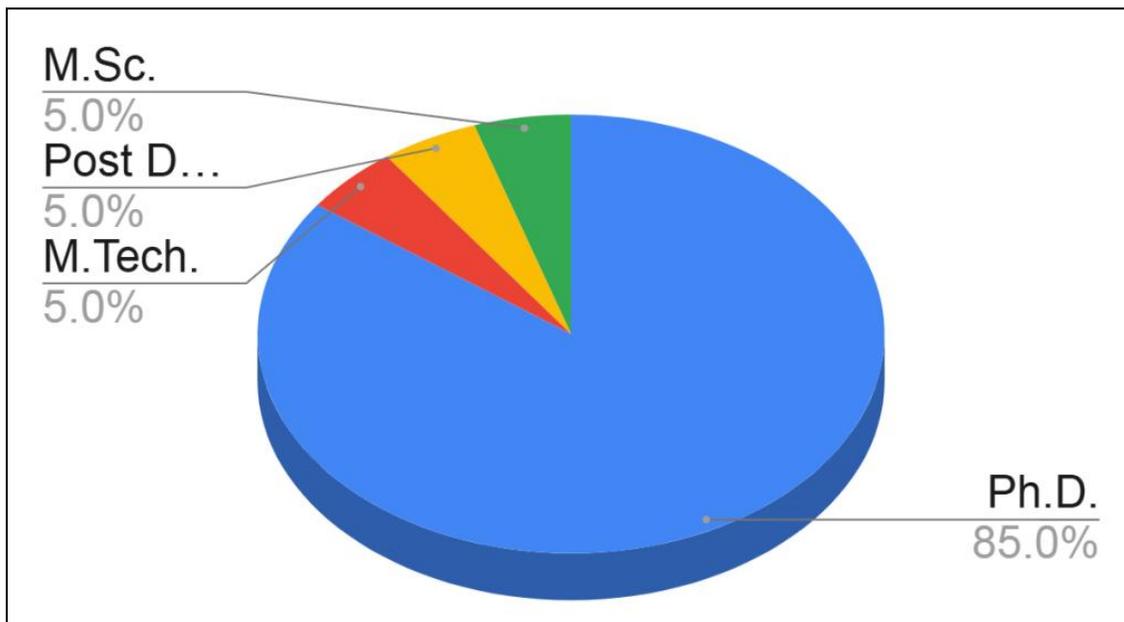
**2. Gender:**

**Fig. 1: Gender Composition of External Experts**
**3. Age Group (in years):**
**Table 2: Gender and Age Group wise Respondents**

Gender	Age Group (in years)				Total	Age Group (in years)			
	25 to 35	36 to 45	46 to 55	56 and above		25 to 35	36 to 45	46 to 55	56 and above
Female	1	2	5	1	9	11.1	22.2	55.6	11.1
Male	2	1	6	2	11	18.2	9.1	54.5	18.2
Total	3	3	11	3	20	15.0	15.0	55.0	15.0



**Fig. 2: Gender and Age group wise population of External Experts (Respondents)**

**4. Highest Educational Qualification:**



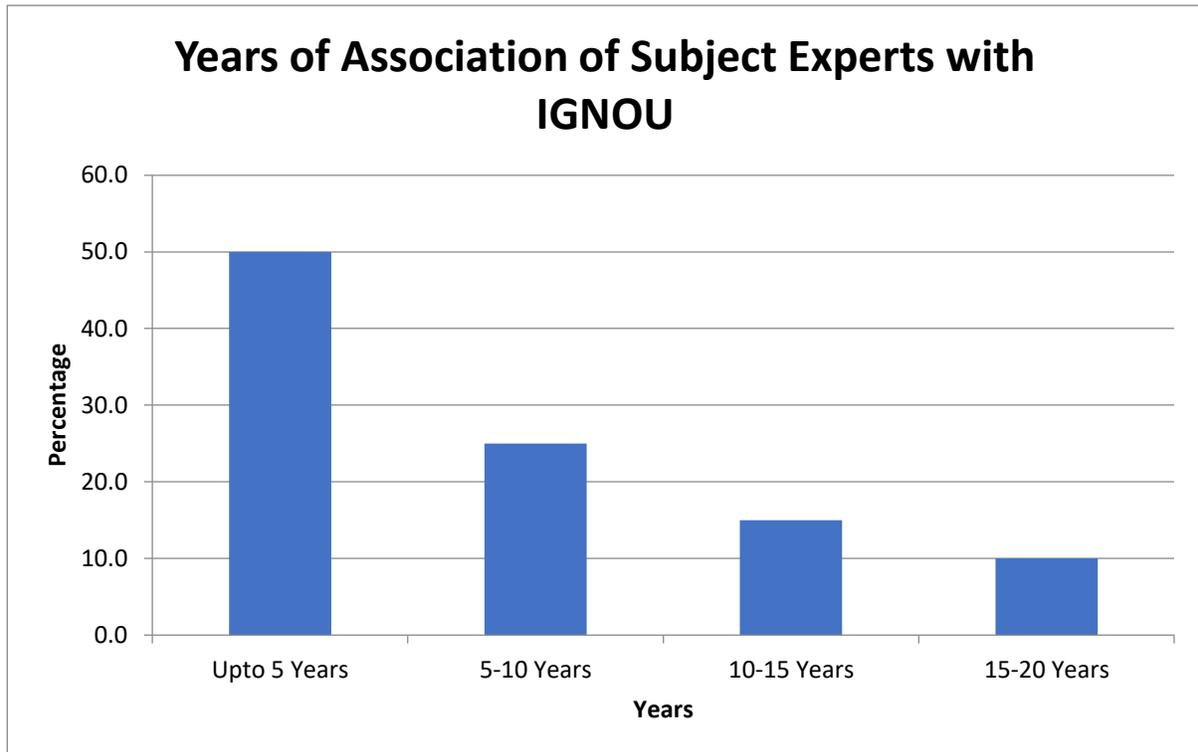
**Fig. 3: Educational Levels of External Experts**

**5. Institution with number of Subject Experts Employed:**
**Table 3: Institution of Subject Experts' Affiliation**

Sl. No.	Institution	Number of Experts
1	ARSD College, Delhi University	1
2	Azim Premji University	1
3	Brainware University	1
4	Central University of Haryana	1
5	D.A.V.(P.G.) College, Muzaffarnagar	1
6	DST & now MERIT	1
7	Gargi College, University of Delhi	1
8	I. P. College for Women	1
9	ICAR-Indian Institute of Sugarcane Research, Lucknow	1
10	IGDTUW	1
11	IGNOU, New Delhi	1
12	IMT CDL Ghaziabad	1
13	Jawaharlal Nehru University, New Delhi	1
14	Kalindi College University of Delhi	1
15	Maharaja Agrasen College University of Delhi	1
16	OP JINDAL GLOBAL UNIVERSITY	1
17	PMIDC, Govt. of Punjab	1
18	Ramjas College, University of Delhi	1
19	Saurashtra university Rajkot	1
20	Shree Guru Gobind Singh Tricentenary University	1
	Grand Total	20

**6. Number of Years of Association of Subject Experts with IGNOU:**
**Table 4: Years of Association of External Expert**

Year of Association	Frequency	Percent
Upto 5 Years	10	50.0
5-10 Years	5	25.0
10-15 Years	3	15.0
15-20 Years	2	10.0
Total	20	100.0



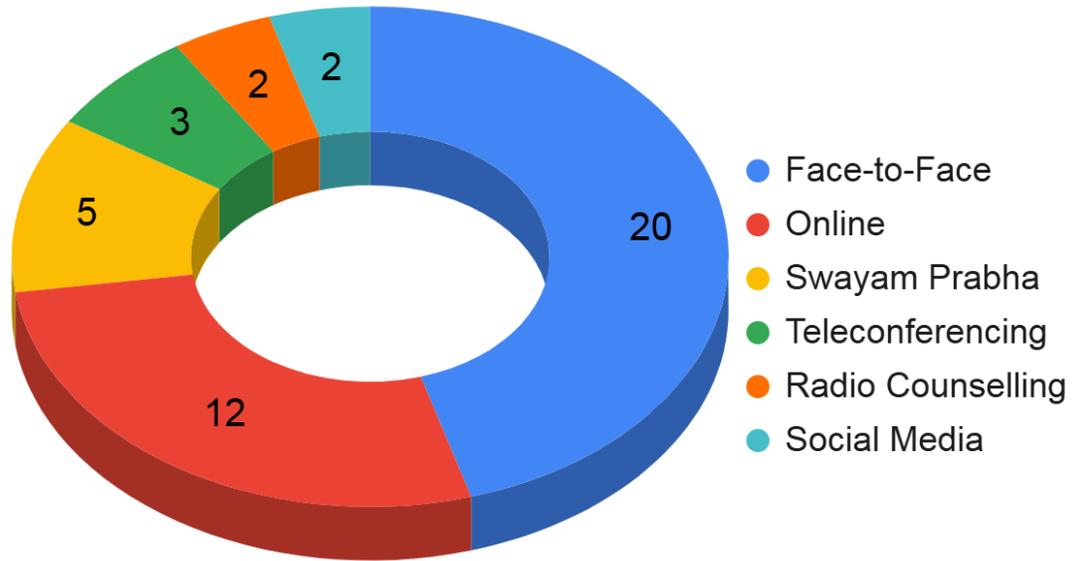
**Fig. 4: Duration of Association of Subject Experts with IGNOU**

**7. Which mode of academic counselling you think is more useful in your subject:**

**Table 5: Mode of Academic Counselling More useful in Expert's subject**

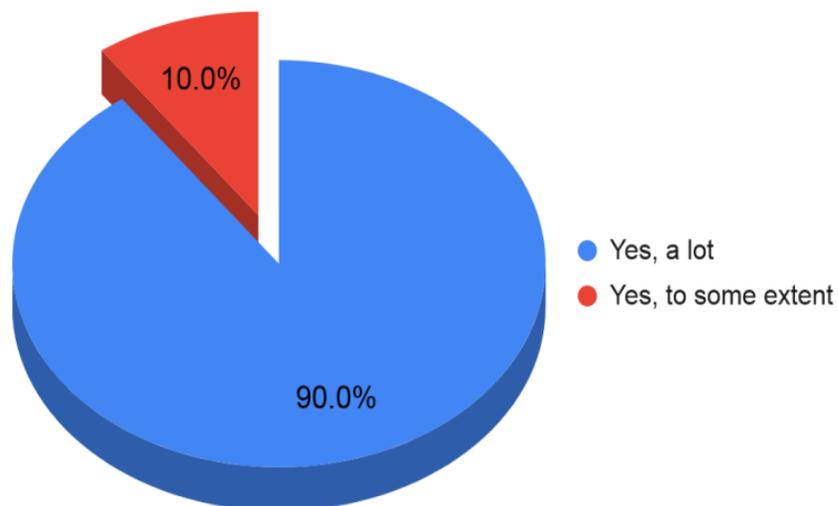
Mode	Number	Percent
Face-to-Face	8	40.0
Face-to-Face, Online	4	20.0
Face-to-Face, Online, Radio Counselling, Swayam Prabha, Social Media	1	5.0
Face-to-Face, Online, Social Media	1	5.0
Face-to-Face, Online, Swayam Prabha	3	15.0
Face-to-Face, Online, Teleconferencing	2	10.0
Face-to-Face, Online, Teleconferencing, Swayam Prabha	1	5.0
<b>Total</b>	<b>20</b>	<b>100.0</b>

**Responses on Individual Mode of Academic Counselling**



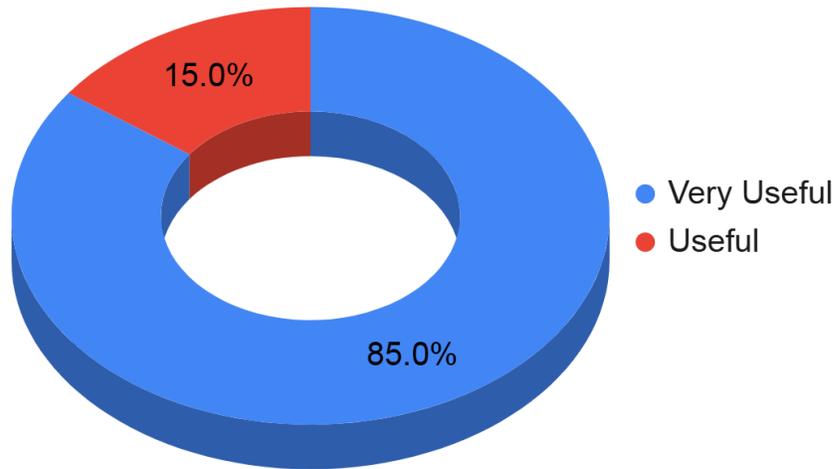
**Fig. 5: Responses on Individual Mode of Academic Counselling**

**8. Whether Academic Counselling Sessions Provide Opportunities for Interaction and Discussion:**



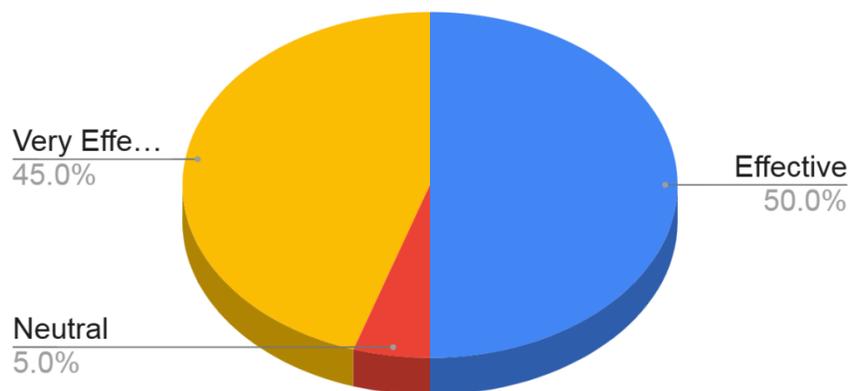
**Fig. 6: Responses on Whether Academic Counselling Sessions Provide Opportunities for Interaction and Discussion**

**9. Usefulness of Academic Counselling Sessions in Enhancing Learners' Subject Knowledge and Clarifying their Doubts:**



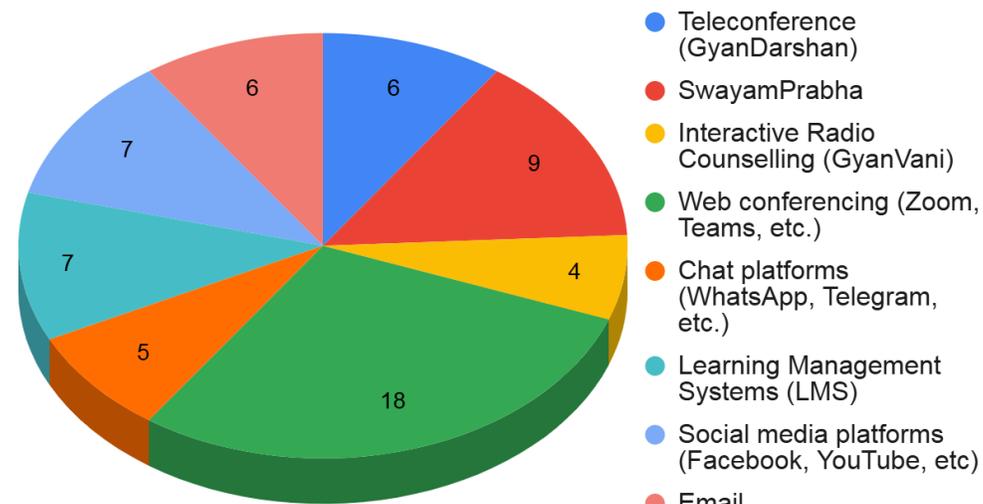
**Fig. 7: Responses on Usefulness of Academic Counselling Sessions in Enhancing Learners' Subject Knowledge and Clarifying their Doubts**

**10. Whether ICT Integration is More Effective in the Teaching-Learning Process:**



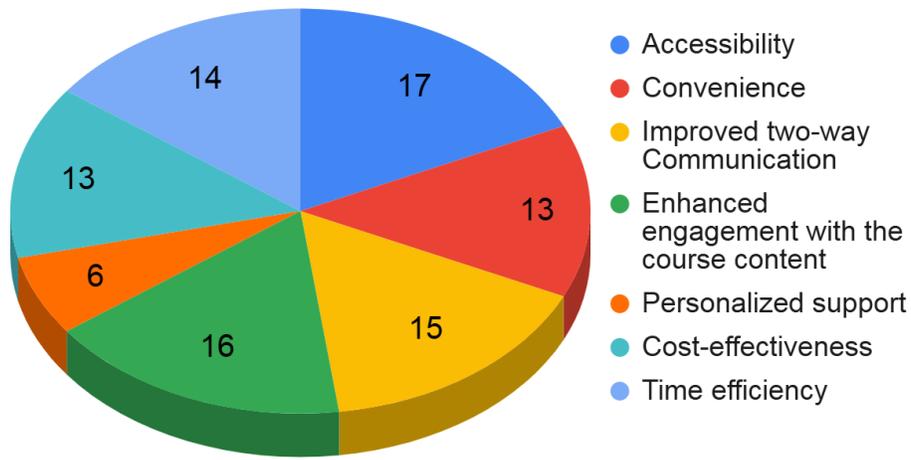
**Fig. 8: Responses on Whether ICT Integration is More Effective in the Teaching-Learning Process**

**11. In Subject Expert's Opinion, More Effective ICT Tool(s) for Academic Counselling in their Subject in ODL:**



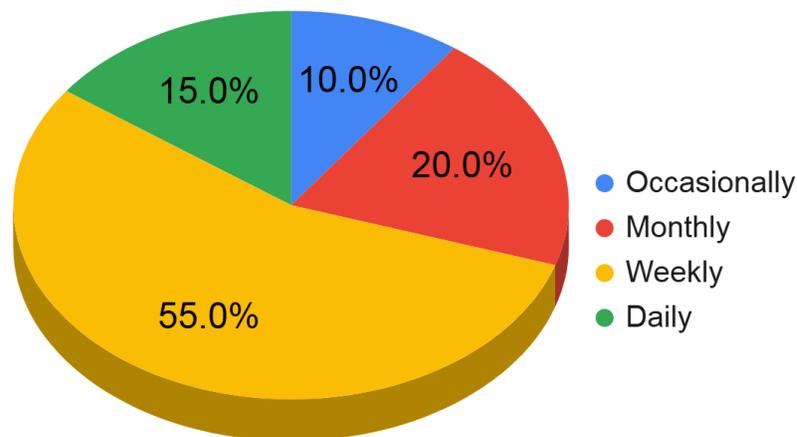
**Fig. 9: Subject Expert's Opinion on More Effective ICT Tool(s) for Academic Counselling in their Subject in ODL**

**12. Key Benefits of Using ICT in Academic Counselling in subjects of Subject Experts:**



**Fig.10: Key Benefits of Using ICT in Academic Counselling in the Subjects of Subject Experts**

**13. In Subject Expert's Opinion, Frequently of ICT-based Academic Counselling need to be Organised for Effective Teaching-Learning:**



**Fig.11: Subject Expert's Opinion on Frequently of ICT-based Academic Counselling need to be Organised for Effective Teaching-Learning**

**14. Suggestions from Subject Experts for Improvements to Enhance the Effectiveness of ICT-based Academic Counselling in ODL:**

- Would suggest to take students' feedback from time to time on their learning experience.
- Assessment and viva on regular basis should be taken in order to properly evaluate the students progress.
- Enhancement of communication from the learner's end.
- It must ensure two way communication.
- Provide tablet based studies with videos and interactive sessions.
- While the existing infrastructure may suffice for the current scenario, further enhancement and integration will be essential to align with future requirements and the objectives of the National Education Policy (NEP) 2020, ensuring the smooth implementation and continuous improvement of Open and Distance Learning (ODL.). Please find some points to be incorporated with to insure above:
  1. Enhanced Infrastructure: Strengthen broadband connectivity and upgrade network infrastructure to ensure reliable and uninterrupted access to digital learning resources.
  2. Enhanced Software and API Integration: Develop and implement upgraded APIs within an open-source environment to integrate diverse learning and practical content into a unified platform. This will enhance the visualization of theoretical and practical concepts and support the development of interactive applications to make learning more effective and efficient.
- Regular and topic based two way interaction
- Weekly contact, discussion with email, WhatsApp, discussion using zoom
- To enhance the effectiveness of ICT-based academic counselling in ODL it is essential to schedule regular video or voice sessions slots using platforms like Zoom, Google Meet etc.

- Train Counselors in Digital Pedagogy and ICT Tools, Ensure Mobile and Low-Bandwidth Compatibility, Personalized and Data-Driven Counselling, Offer Multilingual Support for Diverse Learners
- To enhance ICT-based academic counselling in ODL, I suggest adopting multi-modal, mobile-friendly platforms with personalized support using learning analytics. Additionally, regular digital literacy training for counsellors and students, ensuring accessibility and instant communication tools, will improve engagement and inclusivity aligned with NEP 2020.15.
- There should be a continuity in conducting and monitoring to maintain the regularity of such interactions.
- Maximum 20-30 students per session should be engaged.

**15. Any additional comments:**

- Experts in the concern subject/ topics should be engaged in such activities.
- Analyze and act upon student input to improve the level of quality and applicability of ICT-based academic counselling at ODL.

**4.0: Profile of the Respondents**

A total of 20 Subject Experts participated in the feedback process. The demographic and professional profiles of these respondents are summarized below:

- **Gender Distribution:** 55% of the respondents were male, while 45% were female.
- **Age Distribution:**
  - 25–35 years: 15%
  - 36–45 years: 15%
  - 46–55 years: 55%
  - 56 years and above: 15%
- **Educational Qualifications:**
  - M.Sc.: 5%
  - M.Tech.: 5%

- Post-Doctoral: 5%
- Ph.D.: 85%
- **Association with IGNOU:** Experts had varied levels of experience with IGNOU, ranging from 1 to 37 years.
- **Institutions:** The experts represented prestigious institutions across the country, such as Delhi University, Jawaharlal Nehru University, Central University of Haryana, and ICAR, among others.

### **5.0 Key findings:**

The feedback aimed to assess the effectiveness and challenges of integrating ICT tools in academic counselling within the ODL framework. Key findings include:

- **Preferred Modes of Academic Counselling:** The most favored mode is Face-to-Face counselling, with a count of 20, indicating a strong preference for direct personal interaction. This is followed by online counselling, which stands at 12, reflecting the growing acceptance of digital platforms. Swayam Prabha, a group of educational DTH channels, is preferred by 5 learners, while Teleconferencing accounts for 3. Radio Counselling and Social Media are the least preferred, with only 2 learners each opting for these modes. Overall, the chart highlights a continued inclination towards traditional counselling methods, though online platforms are also gaining popularity.
- **Effectiveness of Academic Counselling:** A significant number of respondents felt that academic counselling sessions offered meaningful opportunities for interaction and discussion. Most experts rated these sessions as “very useful” or “useful” in enhancing learners’ subject knowledge and in clarifying doubts.
- **ICT Integration in Teaching-Learning:** The majority of experts found ICT tools either “very effective” or “effective” in enhancing the learning process. Web Conferencing tools (such as Zoom, Microsoft Teams, etc.) emerge as the most effective ICT tools for academic counselling in Open and Distance Learning (ODL). These platforms received the highest preference with a count of 18, indicating their strong effectiveness in facilitating live discussions, screen sharing for problem-solving and interactive learning experiences. Following this, Learning Management Systems (LMS) and Social Media Platforms both hold a count of 7, highlighting their supplementary roles in providing structured content and fostering peer communication. Therefore, web conferencing stands out as the most impactful tool for academic counselling in an ODL context.

- **Benefits of ICT-based Counselling:** The key benefits of ICT-based counselling are diverse and impactful. Accessibility ranks highest with a score of 17, indicating that ICT tools significantly enhance learners' ability to access academic support from various locations. This is followed closely by Enhanced Engagement with Course Content (16) and Improved Two-Way Communication (15), highlighting how digital platforms foster active interaction and deeper understanding. Time Efficiency (14) and Cost-Effectiveness (13) further support the value of ICT by saving resources and optimizing schedules. Convenience also scored 13, showing its relevance in accommodating learners' varied needs. Although Personalized Support received a lower score of 6, it still plays a meaningful role in tailoring guidance to individual learners. Overall, the chart emphasizes how ICT enhances accessibility, engagement, communication, and efficiency in academic counselling.
- **Frequency of ICT-based Sessions:** The frequency of ICT-based sessions in academic counselling reveals a strong preference for regular engagement. A majority of 55% of respondents reported participating in ICT-based sessions on a weekly basis, highlighting the importance of consistent interaction. Daily usage follows with 15%, suggesting a significant portion of learners seek ongoing, frequent support. Meanwhile, monthly sessions account for 20%, and occasional participation stands at 10%, indicating that while some learners engage less frequently, the overall trend leans toward more regular use of ICT tools in academic counselling. This reflects the growing reliance on digital platforms for timely and effective academic support. Most respondents recommended weekly sessions, while others supported regular interaction through multiple channels.
- **Suggestions for Improvement:**
  - Regular feedback from learners
  - Periodic assessments and viva sessions
  - Enhanced ICT infrastructure and integration
  - Improved two-way communication
  - Training of academic counsellors in digital pedagogy
  - Personalized support using learning analytics
  - Multilingual content to cater to diverse learners
  - Limiting group size to 20–30 students for effective interaction

**Annexure:**

## Feedback Form

## IGNOU SUBJECT EXPERT

**Dear Sir/Madam,**

As you are aware, the **National Education Policy (NEP) 2020** envisions a transformative shift in the education system, with **digital education** playing a crucial role in enhancing accessibility, equity, and quality. Recognizing the potential of technology in learning, NEP 2020 emphasizes the integration of digital tools and platforms to create a **flexible, inclusive, and learner-centric** education system. Addressing the **digital divide**, NEP 2020 advocates for the development of **digital infrastructure, e-content, and teacher training** in online pedagogy. The policy underscores the role of **Open and Distance Learning (ODL)** in expanding educational opportunities, in which IGNOU plays a **pivotal role in implementing digital education strategies**.

Against this backdrop, the feedback tool has been prepared on the theme “**Integration of ICT in Academic Counselling in Open and Distance Learning (ODL)**” to obtain your views. **You are requested to kindly spare 10-15 minutes of your valuable time for filling up the feedback form given below.** Your responses will help improve the effectiveness of ICT-enabled counselling and will be kept confidential.

**Section A: General Information**

1. Name: \_\_\_\_\_

2. Gender: (Please √) 1) Male      2) Female      3) Third gender

3. Age Group (in years): (Please √) 1) 25 to 35      2) 36 to 45      3) 46 to 55      4) 56 and above

4. Highest Educational Qualification: \_\_\_\_\_

5. Institution you are/were employed: \_\_\_\_\_

6. Number of years you are associated with IGNOU: \_\_\_\_\_

**Section B: Use of ICT Tools in Academic Counselling**

7. Which mode of academic counselling you think is more useful in your subject: (Tick multiple options, if required)

 Face-to-Face    Online    Teleconferencing    Radio Counselling    Swayam Prabha

Social Media

8. Do you think academic counselling sessions provide opportunities for interaction and discussion?

Yes, a lot  Yes, to some extent  Neutral  No, not much  No, not at all

9. In your opinion how useful are academic counselling sessions in enhancing learners' subject knowledge and clarifying their doubts?

Very Useful  Useful  Neutral  Not Very Useful  Not Useful

10. Do you think the ICT integration is more effective in the teaching-learning process?

Very Effective  Effective  Neutral  Ineffective  Very Ineffective

11. In your opinion, which ICT tool(s) is more effective for academic counselling in your subject in ODL? (Tick multiple options, if required)

Teleconference (GyanDarshan)

SwayamPrabha

Interactive Radio Counselling (GyanVani)

Web conferencing (Zoom, Teams, etc.)

Chat platforms (WhatsApp, Telegram, etc.)

Learning Management Systems (LMS)

Social media platforms (Facebook, YouTube, etc)

Email

Any other (please specify) \_\_\_\_\_

12. What are the key benefits of using ICT in academic counselling in your subject? (Tick multiple options, if required)

Accessibility

Convenience

Improved two-way Communication

Enhanced engagement with the course content

Personalized support

Cost-effectiveness

Time efficiency

Any other (please specify) \_\_\_\_\_

13. How frequently do you think ICT-based academic counselling should be organised for effective teaching-learning?

Daily  Weekly  Monthly  Occasionally  Never

### Section C: Suggestions for Improvement

14. What improvements would you suggest to enhance the effectiveness of ICT-based academic counselling in ODL?

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15. Any additional comments:

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**Thank you for your valuable feedback!**