Digital Learning in the Era of Global Covid-19 Pandemic : With special reference to IGNOU

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The Corona Global pandemic has thrown in challenges for educational delivery and curriculum transaction in view of the predicament of various socio-economic constraints and the social distancing being observed in educational institutions. In the present paper an attempt has been made to study the patterns of online teaching-learning in Indira Gandhi National Open University (IGNOU) since the lockdown for facilitating the studies of the learners from their homes. The nationwide e-Counselling organized for the learners through the use of ICT tools in place of the established face-to-face Counselling at the Learner Support Centres

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(LSCs) has been a unique learning experience for the heterogeneous learners as well as the Academic Counsellors across the country. The region wise trends in e-Counselling are reflective of gradual popularization and acceptance of this shift in paradigm from face-to-face classroom teaching-learning to technology-mediated learning as also the accompanying limitations because of various factors. Over and above the e-assignments have also played a significant role for the distance learners during the pandemic period. The learners were given an option to submit their assignments through digital mode. The study brings home the significance of the Open and Distance Learning (ODL) as a vibrant education system ready to adapt to situations such as Covid-19 where teaching and learning has to be carried out in new circumstances.

[**Keywords**: e-counseling, ODL, LSCs, Gyan Darshan, UGC, Covid-19, Blended Learning, Digital Learning]

1. Introduction

The COVID-19 pandemic is a great challenge for education systems at all levels-Primary, Secondary and Higher education across the world. During this pandemic, digital learning is a growing and emergent area which is mainly concerned with teachinglearning process using digital medium. It has developed from the activities such as sharing of text resources and curriculum transaction through videoconferencing and social media platforms and students submitting online assignments for evaluation. The developments in the field of Information and Communication Technologies (ICT) and the internet have made multiple methods of digital Education possible. Eight steps such as Plan, Review, Arrange Guide, Yak (Talk), Assign, Track, Appreciate (PRAGYATA) have been suggested for accomplishment of digital and online learning by Ministry of Human Resource Development (MHRD) of Government of India renamed as Ministry of Education (MOE). In addition the Central Board of Secondary Education (CBSE) and Ministry of Education Government of India has also introduced two educational apps namely Diksha and Nishtha for the online digital learning and upliftment of Teachers' education programme respectively. Up to 10+2 level these apps were made compulsory for the teachers to enhance their knowledge through digital mode. Diksha is digital infrastructure for knowledge share. This national digital infrastructure for teachers has been developed with latest advanced digital technology. This educational app is free educational platform which offers the digital learning material for both teachers and

students. Nishtha (National Initiative for School Heads and Teachers Holistic Advancement) is another capacity building digital programme. The basic objective of the programme is to train teachers across the country. In the present scenario the online and digital learning offers seamless possibilities of imparting education by bridging physical and social distancing. Online learning is an education which takes place through the Internet and sometimes is also known as e-learning. Open and Distance Learning (ODL) institutions provide education through off campus where the face to face interaction between distance educators and learners takes place in the form of Academic Counselling unlike the conven-tional classroom teaching technique. It helps to remove restrictions and barriers, both social and physical. Using the Online mode of academic interaction in ODL to meet the challenges of Covid-19 pandemic can provide the distance learners with high-quality education in synchronous or asynchronous method at their own place and time at their work place or at home.

Information and Communication technologies (ICT) are playing a vital role in imparting online education. The online education has numerous advantages though there are limitations and constraints as well depending upon the context and learning environments particularly in developing countries.

In the Indian context, the ODL institutions such as Indira Gandhi National Open University with a nationwide presence initiated the use of technology in education more than two decades back with the multiple mode of delivery of instructional system through the blending of face-to-face Academic Counselling and use of educational TV, radio, EDUSAT and audio-video packages. With this background the emerging use of web-based Counselling and use of social media such as Twitter and Facebook for educational delivery has enabled the University to make use of online platforms for facilitating teaching-learning nationwide in a big way during the lockdown and the continuing Covid-19 situation. Adapting to this new paradigm of teaching-learning through web-enabled technologies presents a challenge as well as unique experience for both teachers (Academic Counsellors in ODL) as well as learners.

New educational technologies have been introduced in providing education to all segments of society. Online education and

ODL system of education have proved a boon in the present situation of Covid-19 pandemic.

2. Objectives of Study

The main objective of the present study is to highlight the trends and patterns of digital learning in ODL through the study of Indira Gandhi National Open University during the lockdown period of Covid -19 pandemic. Through this study an attempt has been made:

- To find out the usefulness and efficacy of e-counselling through digital mode in different regions of the country as compared to face to face counselling which was used in ODL before lockdown period
- To explore the effectiveness for submission of e-assignment through digital mode specially during pandemic period

3. Methodology

The present study makes use of data on online Counselling sessions organized by various Regional Centres (RCs) of IGNOU divided into different categories such as North, East, West, South and North-East regions and posted on IGNOU social media platforms Face book and Twitter regularly on the IGNOU website. The efforts have been made to collect the data of e-counselling/digital counselling conducted by the various Regional Centres of IGNOU across the country and also analyze the volume of online submission of e-assignments by the learners and its online evaluation by the Academic Counsellors during Covid-19 pandemic period upto 31.07.2020.

4. Role of Online Education in ODL in Higher Education

Distance learning concept has been introduced with a view to democratize education to all segments of population. The primary emphasis of Open and distance learning (ODL) mode is on innovation and easy accessibility to the learners of higher education. The globalization of ODL provides many opportunities for countries during this Covid-19 pandemic where physical presence of distance educators is not required which serves the purpose of social distancing. As mentioned earlier, Blended Learning has been used in

IGNOU since its inception. As of now, apart from digital self instructional material for learners multiple modes of technologyenabled learning such as the use of GyanVani FM educational radio channels, Gyan Darshan TV channels, Interactive Radio Counseling, web conferencing, two way teleconferencing, Face book live sessions and videoconferencing platforms such as Zoom, Ciscowebex, and Google meet etc.are being actively utilized for imparting teaching and learning during Covid-19 pandemic situation. The ODL through Gyan Darshan and GyanVani educational media has successfully established its effectiveness in delivery of quality and affordable higher education to all disciplines of education such as Management, Social Sciences, Computer Sciences, medical education etc. In the light of pandemic experiences, ODL can prove to be viable provider of equitable opportunities to people as the Government plans to utilize the promotion of higher education as an instrument of socioeconomic transformation. On 10th May 2020 the Indian University Grants Commission (UGC) has issued a public notice regarding the redressal of grievances related to Covid-19 pandemic. The UGC has advised to plan their academic activities keeping in view of safety of all stakeholders giving the highest priority to the health of all concerned while adopting and implementing the guidelines. UGC has also requested to establish a cell at educational institutions for handling grievances of the students. Further on 20th April 2020 Principal Secretary Higher Education Government of Uttar Pradesh issued the directions to all Higher education institutions of State of Uttar Pradesh to watch the Gyan Darshan educational programmes of higher education. This is reflective of the growing acceptability and role of ODL in reaching out to vast segments of populace.

In the present scenario around 24% population of our country is getting opportunities of higher education through the Open Universities of the country. Presently IGNOU, a Central University, 14 state Universities and some institutions are offering open education through distance mode which is a really viable mode of education in the present scenario. The nationwide e-counseling method of imparting education is a novel and effective way of teaching-learning in the era of global pandemic which holds seamless possibilities of synchronous, asynchronous as well as collaborative learning.

Therefore, benefits of using e-counseling will also be analysed. Attempt will also be made to suggest suitable strategies to enhance

access and equity of quality higher education through ODL mode. The paper will chalk out a detailed strategy to make wide spread use of e-counselling in the LSCs to make higher education accessible through ODL intervention in order to bridge the existing gap so that knowledge and skill of the youth can be enhanced and this will have cascading effects on the living standards of this unreached section of populace.

The steady adoption and promotion of ICT Tools in teachinglearning in IGNOU over the past few years - web-enabled Counselling (School of Agriculture Programmes and Post Graduate Diploma in Food Safety and Quality Management online Counselling since 2012), Twitter (School of Computer and Information Sciences twitter handles since BCA Twitter in 2012), promotion of Facebook page of University Hqrs (launched in August 2018 Source Annual Report 2018-19/Profile 2018) and social media platforms of Regional Centres have laid the path for the wide use of these web-enabled tools in the online education during Covid-19 pandemic situation. The nationwide e-Counseling conducted for learners not only utilises the videoconferencing platforms such as Zoom, Cisco, webex, Google Meets etc. but also effectively makes use of social media in online learning such as Facebook Live, YouTube etc. The Counseling schedules of Regional Centres displayed regularly on the Face book page of the University have reflected the volume and diverse use of these tools in online teaching-learning over the last few months (Source-IGNOU Face book page). Apart from these the learners have been motivated to use e-resources - eGyankosh and e-content app of the University for consulting digital materials during the pandemic. The offer of 14 Academic Programmes by the University in online mode during the Covid scenario notably the launching of Masters in Hindi (MHD) and other Certificate Programmes in online mode by Minister for Human Resource Development on 20th May 2020 has come as a feather in the cap in the University's initiatives in effective use of online education in ODL. This is also in conformity with the expectations and objectives of policy framework envisaged in New Education Policy 2020 on Online and Digital education in the country (Source: NEP 2020).

5. Usefulness of Online Education

Online education and ODL system of education are proving to be a boon in the present situation of Covid-19 pandemic. There are numerous advantages of online education as has been observed in the era of covid-19 pandemic. The primary benefit of online education on the one hand is that it is able to provide education to all segments of society and on the other hand, it makes wide use of New educational technologies which have been introduced in providing education. The online courses are convenient and flexible as they can be accessed as per the requirement of learner. Studies suggest that the online courses are also economical and cost effective not only for learners but for educational institutions as well. Introduction of online courses is very beneficial for those students who are residing far away from the educational institutions and where the opportunity of education is very minimal. IGNOU is a pioneer in ODL system in imparting online education. In Covid -19 Pandemic the educators of University have changed their methodology of curriculum delivery and introduced e-counselling in place of face to face counseling. It has been observed that extensive use of ICT Enabled/Online Learner Support Measures were introduced by Various Regional Centres of IGNOU. During this lock-down period up to 31.07.2020, in addition to Face book live sessions and e-counselling sessions through Gyanvani, Gyan Darshan taken by Teachers of IGNOU at Hqrs, around 35,513 e-Counselling sessions were taken by Academic Counsellors across the country which is a great achievement in education. The UNESCO Report 2020 released during Covid predicament, in its overall survey of global educational scenario, points out that online modes of education have been adopted by India and other countries across the world during the global pandemic. It makes the observation that online education during this phase has become a solution to secure uninterrupted learning, and more significantly, the fact that distance education has increased communities' involvement in creating a favorable learning environment possible during pandemic situation (Global Education Monitoring Report 2020 UNESCO).

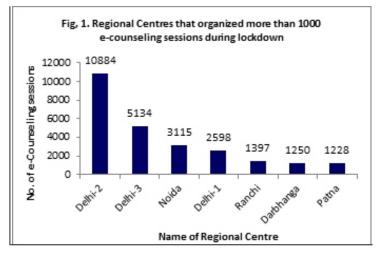
A Report of Commonwealth of Learning (COL) submitted to Commonwealth Education Ministers in June 2020 in its listing of use of technologies by Commonwealth governments during Covid-19 referred to use of radio & TV channels, e-learning portals, YouTube and online learning in India (Kanwar & Daniel, 2020 : 3). All these tools are being effectively utilised by IGNOU in teaching-learning during the pandemic. The Report maintained that Distance learning contributes to a resilient education system ready to adapt to

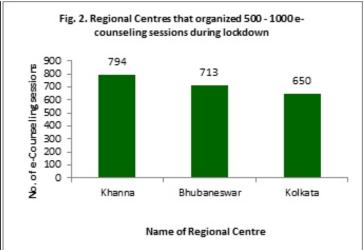
situations such as Covid-19 where teaching and learning has to be carried out in new circumstances, through its elements of access, cost, quality, inclusion and environmental impact (ibid, 7-8).

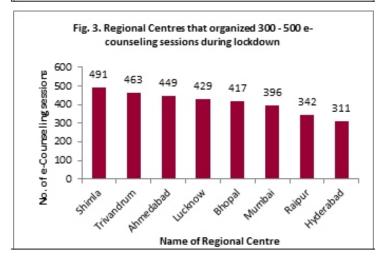
In the present study IGNOU Regional Centres (RCs) have been divided into six categories depending upon the number of web counseling sessions organized during the lockdown period as shown in Figures 1 to 6. The first category is that of the Regional Centres which have conducted more than 1000 e-counseling sessions and the data has been presented in Fig. 1. As can be seen from the figure, there are seven RCs in category-1 which is led by RC Delhi-2 with 10884 e-counseling sessions followed by Delhi-3 (5134), Noida (3115), Delhi-1 (2598), Ranchi (1397), Darbhanga (1250) and Patna (1228). The second category is that of the RCs which organized 500 to 1000 e-counseling sessions and there are only three RCs falling under this category namely Khanna, Bhubaneswar and Kolkata (Fig. 2). Next to this category is that of the RCs with 300 to 500 web counseling sessions and the number of RCs pertaining to this category is eight, which is led by Shimla with 491 sessions closely followed by Trivandrum, Ahmedabad, Lucknow and Bhopal (Fig. 3). The next category comprises of seven such RCs that have organized 200 to 300 e-counseling sessions during the period under investigation with Bijapur being the one with highest number of sessions i.e. 281 and Vishakhapatnam being the one with the least number of sessions in this category of RCs i.e. 225 sessions (Fig. 4). The RCs in the second largest category with 100 to 200 e-counseling sessions are fifteen in number with the highest number of sessions by RC Vijayawada (196) and the one with the lowest number of sessions being 104 by RC Guwahati (Fig. 5). The category with the maximum number of RCs has been found to be that of zero to 100 e-counseling sessions with sixteen RCs including Itanagar, Kohima, Port Blair, Rajkot and Shillong where no e-counseling session have been conducted during the lockdown period (Fig. 6).

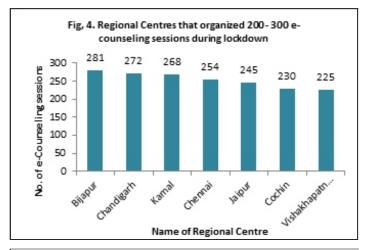
It is interesting to note that there has been found a very broad range in terms of number of e-counseling sessions conducted by different Regional Centres across the country i.e. from zero sessions by five RCs to 10884 sessions by RC Delhi-2, which is also the largest Regional Centre in terms of the number of learners enrolled in any particular academic session.

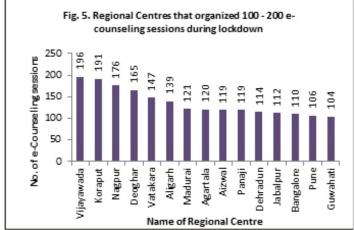
Number of e-Counseling Sessions organized during the lockdown Period

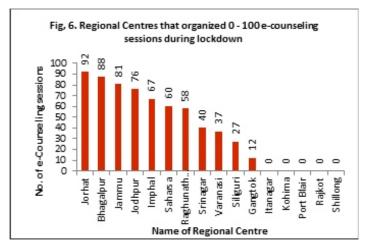








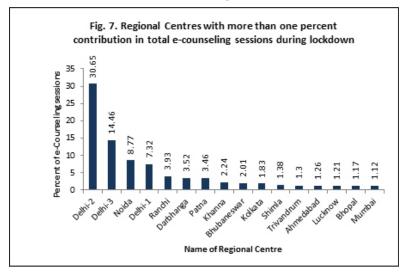


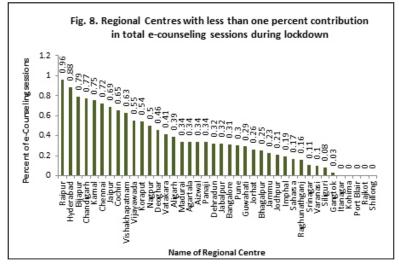


If we look at the percent contribution of different Regional Centres towards the total number of e-counseling sessions organized during the lockdown period as shown in Figures 7 and 8, it has been found that more than fifty percent of the sessions have been conducted by three RCs namely Delhi-2, Delhi-3 and Noida. In the group of RCs that have contributed more than one percent of the total number of e-sessions, there are sixteen Regional Centres with the highest contribution by Delhi-2 i.e. 30.65 percent and the lowest being 1.12 percent by RC Mumbai. The cumulative contribution of these 16 RCs has been found to be 85.63 percent.

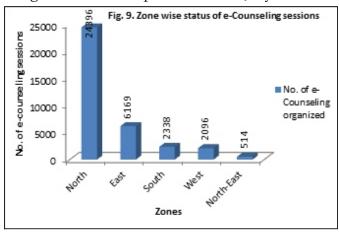
Remaining 40 Regional Centres are such that have contributed less than one percent towards total number of e-counseling sessions during the lockdown period and the cumulative percent contribution of such 40 RCs towards total number of e-sessions has been found to be 14.37 percent.

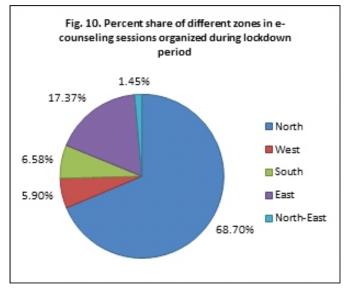
Percent Contribution of Regional Centres towards total no. of Counseling Sessions conducted during Lockdown Period





On analysis of the zone-wise status of the Regional Centres in terms of number and percent of web counseling sessions organized during the lockdown period as shown in Fig. 9 and 10, it has been found that the RCs of North Zone (14 RCs) have conducted the highest number of sessions i.e. 24396 e-sessions which is 68.7 percent of the total number. It is followed by East Zone which comprises of 12 RCs and has organized 6169 e-counseling sessions (17.37 percent) which is far behind the North Zone. Next to the East Zone in terms of e-counseling sessions is South Zone with 11 RCs (2338, 6.58 percent), which is closely followed by West Zone having 10 RCs (2096, 5.90 percent) and the last being North-East Zone comprising of 9 RCs that has made a contribution of 514 e-counseling sessions i.e. 1.45 percent of the total e-counseling sessions conducted by RCs across the country during the lockdown period till 31st July, 2020.





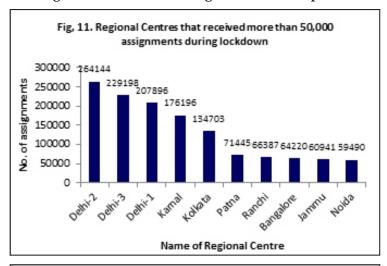
On the basis of the number of assignments received during the lockdown period, Regional Centres (RCs) have been categorized into six groups as depicted through Fig. 11 to 16. The first category consists of 10 RCs which have received more than 50000 assignments (Fig. 11). The RC that has received the highest number of assignments has been found to be Delhi-2 with more than 2.64 lakh assignments received till 31st July, 2020 followed very closely by Delhi-3 and Delhi-1 with 2.29 lakh and 2.08 lakh, respectively. The RCs that fall in the range of 1 to 2 lakh assignments are Karnal (1.76 lakh) and Kolkata (1.35 lakh). Remaining five RCs in this category i.e. Patna, Ranchi, Bangalore, Jammu and Noida have received 0.71, 0.66, 0.64, 0.61 and 0.59 lakh assignments, respectively.

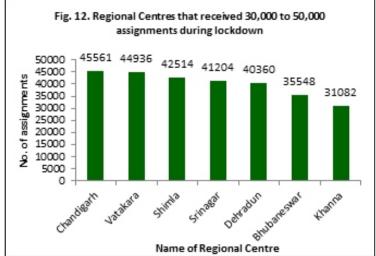
The second category is that of the RCs which have received 30000 to 50000 assignments and there are seven RCs falling under this category with Chandigarh being the one with the maximum number of received assignments i.e. approximately 45.6 thousand followed closely by Vatakara, Shimla, Srinagar and Dehradun (Fig. 12). Two RCs in this category namely Bhubaneswar and Khanna have received less than 40 thousand assignments i.e. 35.5 and 31 thousand, respectively. Next to this category is that of the RCs with 20000 to 30000 assignments received during the lockdown period and the number of RCs pertaining to this category is six, which is led by Mumbai with 26.7 thousand assignments followed very closely by Pune (26.5 thousand) and Luckow (25.3 thousand) (Fig. 13). These RCs are followed by Siliguri, Cochin and Trivandrum.

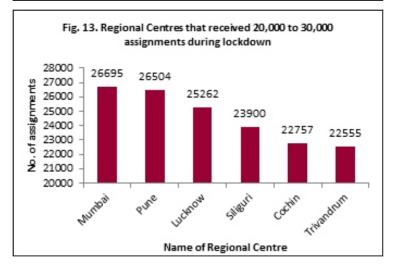
The fourth category of RCs is that of the ones with the receipt of 10000 to 20000 assignments and this category comprises of eight RCs (Fig. 14). In this category, Deoghar is the Regional Centre that has received the maximum number of assignments i.e. 19.5 thousand. The RC under this category with the least number of received assignments is Bhopal with 10.8 thousand.

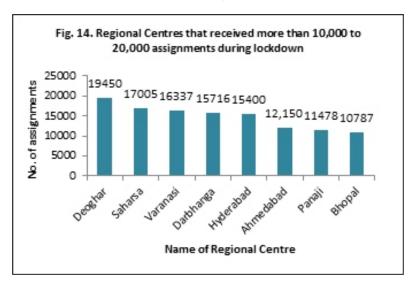
Fifth in the sequence are the RCs that have received 5000 to 10000 assignments and there are 13 RCs in this group with Gangtok as the one with highest number of received assignments i.e. 8915 and Madurai being the one with the lowest number i.e. 5535 (Fig. 15). The last category is that of such 11 RCs where the number of received assignments during the lockdown period till 31st July, 2020 has been found to be between 1000 and 5000 only (Fig. 16). Amongst all the 56 RCs spread across the country, Raghunathganj is the one where minimum number of assignments (1370) have been received.

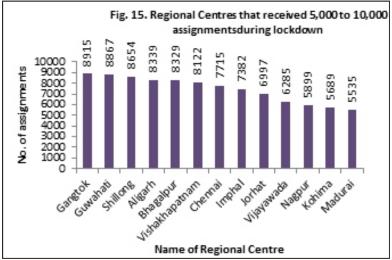
Assignments received during the lock down period

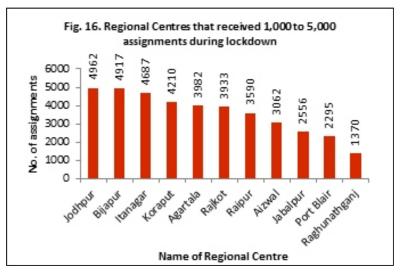


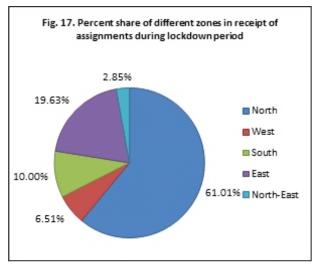


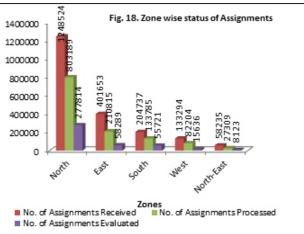


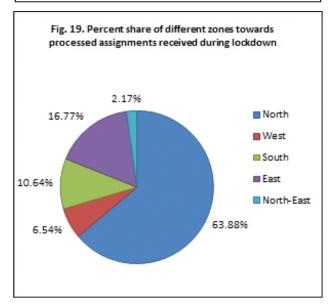












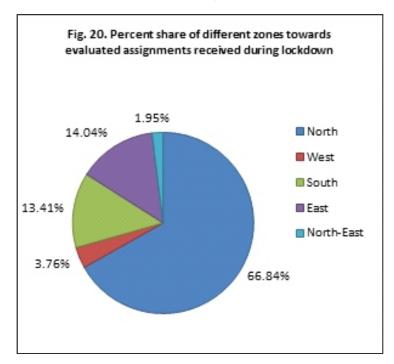


Table-1: Zone wise Details of ICT Enabled/Online Learner Support Measures Adopted as on 31.07.2020

Sr. No.	Name	No of E-counselling organised	Percenage Share of RC in total	No of assignment Submitted	0/0
1.	North Zone	24396	68.70	1248524	61.000
2.	West Zone	2096	05.90	133294	06.51
3.	South Zone	2338	06.60	204737	10.00
4.	East Zone	6169	17.36	401653	19.64
5.	North East Zone	514	01.44	58235	02.85
Total		35513	100.00	2046443	100.00

Looking at the zone wise status of assignments received, it is evident from Fig. 17 and 18, and Table 1 that the Regional Centres of North Zone have received the highest number and percentage of assignments during the lockdown period with the number being 1248524 which is 61.01 percent of the total assignments received by 56 Regional Centres. Next to the North Zone is East Zone in terms of receipt of assignments i.e. 401653 in number and 19.63 in percent. It is followed by South (204737, 10 percent), West (133294, 6.51 percent) and North-East (58235, 2.85 percent) zones, respectively.

It can also be seen from Fig. 18 that the zone wise patterns of assignments processed and evaluated are similar to that of the receipt of assignments i.e. North Zone is followed by East, South, West and North-East Zones respectively in terms of processing and evaluation of assignments received during the lockdown period (Fig. 19 and 20, Table-1).

It is interesting to note that the zone wise trend of receipt of assignments is also similar to the zone wise conduct of e-counseling sessions (Table-1).

6. Challenges of Covid-19 for Higher Education

COVID-19 pandemic is the greatest challenge for the educators for imparting the education not only in India but also across the world. The University Grant Commission (UGC), Ministry of Human Resource Development (MHRD), Govt. of India now renamed as Ministry of Education and many state governments have issued the notifications for using online education rather than conventional and face to face contact sessions. As per the directives of MHRD, all State and Central Universities have directed to its constituents colleges and institutions to cease face-to-face instruction to the students and requiring them to switch to online teaching and e-learning. In mid of March 2020, the Central government declared the nationwide lockdown of all establishments and services including educational institutions. As per the directions of the MHRD, Government of India has issued the circular for closing the schools and colleges temporarily as a measure to contain the spread of the novel corona virus. The higher educational institutions have been reflecting on the ways and means of continuing the education through alternative methods. It has been a critical period for the education system to conduct the entrance tests of various Universities. The teaching/learning, including assessment methodologies have been badly affected due to the closure of colleges and institutes of higher learning. Only a few Higher education institutions including Open Universities could adopt online and e-learning teaching/learning methods. Some private and government schools where there is a scarcity of funds on the other hand, have entirely shut down for not having access to e-learning resources and infrastructure. The enrolled students of such institutions have missed the opportunities for learning through online mode. The pandemic has extensively interrupted the higher education system. India is the second largest country of the world following China where a large number of students are enrolled in higher education. Out of them a significant number of the students are studying in the countries which are adversely affected by the pandemic. If the condition of pandemic continues in long run, it will be seen that there will be extreme decline in the international higher education.

- It is a critical period for the education system to conduct face to face teaching sessions, examinations and conduct of entrance tests for admission in various Universities.
- The teaching/learning, including assessment methodologies have been adversely impacted due to the closure of colleges and institutes of higher learning.
- Only a few Higher education institutions including Open Universities could adopt online and e-learning teaching/learning methods.

But on the other hand the Online Education has some limitations and constraints as well.

- Online courses require more time than on-campus classes.
- Online courses require good time-management skills.
- Online courses have complete dependency on technology and internet.
- Online Courses require the good infrastructure like computer, smart phone with internet connectivity
- Such infrastructure is not adequately available in rural, remote and far flung areas.
- The teachers and students are not adequately friendly with online education.
- Online course may create a sense of isolation as there is no opportunity for learners to interact face to face with peer group.

7. Conclusion and Suggestions

The discussion and results analysis in the foregoing pages of the data of the ICT-enabled learner support - e-Counselling and online submission of assignments by IGNOU learners during Covid-19 as well as survey findings are indicative of the emerging trends in the digital teaching-learning propelled by the pandemic situation. The sheer nationwide volume of the online sessions

conducted (35513) and online assignments submitted (2046443) during the period under review points to the growing acceptance of adopting ICT tools in education among both teachers (Academic Counsellors) and the learners. The role of Academic Counsellor as facilitator of learning in ODL has got reinforced through the online teaching platforms. As revealed from survey findings the initial hitches and adjustment issues of the teachers as well as learners towards adopting the online mode has given way to gradual popularisation and acceptance of this shift in paradigm from face-to-face classroom teaching-learning to technology-mediated learning. Further the regular updates of nationwide Counselling schedules of Regional Centres on the Facebook page and Twitter account of IGNOU Hqrs have enabled learners from various parts of the country to attend e-Counselling sessions pertaining to their courses at any Regional Centre/Learner Support Centre across the country. This has resulted in a broadening of horizon and reach of learners as well as Academic Counsellors in collaboration and sharing of educational resources. This collaboration has also fostered the creation of a community of inquiry framework in technologymediated learning which highlights social presence, teaching presence and cognitive presence as key elements in facilitating successful educational experiences in online distance learning environments (Bektashi, 2018).

The data used in the study pertains to online Counselling and assignments submission of one million-odd learners registered in July 2019 and January 2020 sessions of the University. The patterns observed in participation in e-Counselling and online submission of assignments in different regions of India as reflected in the results can be attributed to various factors. Firstly, it is the enrolment factor which is highest in the northern region followed by eastern region as compared to other regions of the country. The shifting graph of Corona in different parts of the country has also impacted the levels of participation. The local factors such as floods in some states as well as other socio-economic factors such as the availability of the basic wherewithal for online education - mobile phones, computers etc. with the teachers as well as learners have also impacted upon the conduct and participation level of e-Counselling in many states during lockdown period. Above all, it is the connectivity factor which has contributed to the successful, moderately successful or limited participation in online Counselling in different regions as is evident

from the various tables and graphs in this study. These challenges in the online education have been discussed in detail. The overall inferences drawn from this study while on the one hand establish adoption of ICT tools in teaching-learning as a distinct feature which shall endure in the ODL, on the other hand make a strong case for hybrid or blended learning wherein online education practices during Covid-19 will contribute significantly to the future educational scenario along with face-to-face teaching-learning. The blended learning model shall overcome some of the limitations of online education and invariably strengthen the new role of teacher as facilitator of learning. It will also address the issues of equity, access, learning styles of learners as well as technology integration in the Indian context.

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Weekly Action Taken Report of IGNOU RSD as on 31.07.2020.

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