

JADAVPUR UNIVERSITY

Report for EQUAM-BI, in the context of the Project Meeting held on 14 May 2021

I. Future deployment/adaptation plan with a focus on sustainability

Jadavpur University (JU) is an internationally recognized premier university of the country. It is an urban university with a global perspective and is dedicated to creating leaders who will fashion a more humane and just world. The vision of the University is not only to engage itself in teaching and research of international quality, but also to provide societal services for the benefit of rural and urban populations. Human resource has been one of the strongest attributes of JU. Its faculty is one of the best in the nation in terms of both teaching qualifications and research output. Inclusiveness and diversity are two keywords in the University's lexicon.

Jadavpur University has always given quality its due importance and the University administration, faculty, and staff members thrive on the high quality of teaching and research. The University has participated in the accreditation process of NAAC since 2001 and has completed three cycles of accreditation, all with top grades (3.68 CGPA in a scale of 4 during the last accreditation in 2014). The University also participated in the National Institutional Ranking Framework (NIRF) instituted by the Government of India and has remained within the top 5-6 Universities in the country. The Internal Quality Assurance Cell (IQAC) monitors the quality parameters and advises the University administration with the necessary inputs for the betterment of teaching-learning, research, and governance.

The EQUAM-BI project, which has been run in the University under the aegis of the IQAC, has helped in gathering important inputs on quality parameters through various interactions and disseminations with international and national partner institutions. The Toolkit, developed under the project, can be a useful instrument to adopt quality assurance as a regular and internal process. It has already been discussed within the working group and also with the top University administration to utilize the Toolkit as a capacity building tool for quality in order to ascertain how much the internal processes of the university reflect quality concerns, particularly with respect to the vision and mission of the University. As a particular requirement, it has also been decided to make necessary adjustments and adaptations to the Toolkit to make it sustainable for the University.

However, no administrative action regarding the implementation of the Toolkit or other measures for quality improvement can be contemplated until there is some clarity regarding the probable course the Covid-19 pandemic will take, and especially its likely effects on higher education

in general, and JU in particular. Our Vice-Chancellor, Professor Suranjan Das, has stated that, in his opinion, whatever has to be done should be done after due consultation with, and assent from, stakeholders and statutory bodies, especially the Executive Committee of the University. Further, it is to be noted that any radical change in the University's functioning is dependent on assent from the State Government, since JU is a State University.

However, and even if these changes cannot be implemented before the closure of the EQUAM-BI project, the following three areas have been identified that need to be addressed:

- (i) More integration and collaboration of research activities, especially those with an international component.
- (ii) Greater collaboration with partner institutions in India, including learning from their experiences, and best practices.
- (iii) Better data gathering, management, and implementation both for internal and external purposes.

II. Report on the use of dissemination materials and related activities

The dissemination of the project outcome has been halted by the COVID pandemic which has thrown life out of gear for the last nearly fifteen months. The proposed meeting at the University, which was scheduled in 2020, could not take place as a result of the ongoing pandemic. Thus we missed a great opportunity of publicizing the project among all stakeholders of the University. However, the Toolkit has been extensively evaluated among the working group of the project and a SWOC of it has been discussed in the perspective of JU.

JU always believes in discussions and participation of all stakeholders in implementing policies. Thus it has been decided that once normal, or near-normal, operations resume, and all teachers and non-teaching staff (including officers and administrators) start coming in to work on a regular basis, the usefulness of the Toolkit can be demonstrated with discussion sessions and workshops to encourage the adoption of practices envisaged in, or inspired by, the Toolkit.

III. Good Practices

Good Practice # 1

Fostering a culture of interdisciplinary research, encouraging collaborative research and outreach activities

1. Objective

The aim of the practice includes

- To encourage faculty members and research scholars of different disciplines and faculties to involve in interdisciplinary research
- To increase awareness and benefits of interdisciplinary research culture among the stakeholders
- To facilitate communication among researchers of different disciplines through creation of interdisciplinary schools
- To setup a flexible and supportive administrative structure within the University to promote interdisciplinary research
- To buttress the in house interdisciplinary schools for funding from external agencies

2. Context

Technologies are developing at a phenomenal pace. Therefore, understanding the technologies and finding new avenues of research is becoming increasingly complex. Interdisciplinary research offers a logical means of tackling the intricate research questions of the present generation. Restricting the research in disciplinary silos causes a fragmentation of knowledge and glossing over the complexity of real-life problems and phenomena. This can be overcome readily by promoting inter- and trans-disciplinary culture. Interdisciplinary exchange helps in opening up new theoretical insights to address a research problem. The strengths of bringing the perspectives of different disciplines to bear on a research problem, exposing researchers to alternative research perspectives, literatures and methodologies provide opportunities for researchers to develop, share, understand and adopt more reflexive approaches to their research practice. Most of the leading Universities worldwide are therefore encouraging their faculty members to adopt interdisciplinary research culture.

However, interdisciplinary research often finds a backseat against administrative and organizational bottlenecks. Moreover, researchers and faculty members may tend to remain within their own peers, where they think they will be able to receive better appreciation. In this context, visionary decisions are to be imposed as a practice to reap the benefit in the long run. Jadavpur University nurtured the interdisciplinary research culture among the faculty members and IQAC took active part in formulating methodologies for it.

3. Implementation

The following modes have been adopted in Jadavpur University to promote a culture of interdisciplinary research.

- Research in innovative areas is encouraged through the activities of interdisciplinary schools, which is unique in the Indian Higher Education system. The system allows the University to pool expertise and resources and to embark on new projects and programmes that require multidisciplinary inputs. Special research initiatives in innovative areas were taken up in the UGC sponsored UPE-I programme with multidisciplinary efforts. Research will continue to meet the national need in two focused areas and seven holistic areas under UPE-II as well.
- The University has 21 schools, which are operating on interdisciplinary mode and often in a virtual form. Besides research, activities in many of these schools have led them into initiating postgraduate courses leading to Masters Degrees in unique areas of trans-disciplinary nature. This helps in building a significant pool of manpower trained in novel skill sets and interdisciplinary culture in the country.
- The University administration through its various initiatives, including IQAC initiatives, helped to establish mutual trust and respect amongst researchers from different disciplines. Academic bodies are constituted in every school comprising faculty members from different disciplines. Thus no one discipline is perceived as superior to the others in the constitution of the schools.
- In order to practice the interdisciplinary research culture among the faculty members, the University tries to inculcate holistic, systematic and contextual thinking among the participating members through IQAC and other academic bodies. The members are encouraged to look for unexamined linkages and unexpected effects through joint meeting, workshops etc.
- The researchers pursuing PhD program in the schools have the flexibility to register in his/her choice of faculty for the degree.
- Various research collaborations and joint degree programmes have been initiated with the institutes of global eminence through faculty and student exchanges. University has always played positive role in such collaborations.
- Annual reports are published every year containing the academic publications, conferences/workshops attended, awards/honors own and projects/consultancy undertaken by the faculty members. This helps the faculty members to know about the activities of different interdisciplinary groups and to identify colleagues for potential collaboration.

4. Evidence of Success

The interdisciplinary research culture has helped in improving the research atmosphere in the University and markedly improves the research performance of the University as a whole. Research in the individual disciplines also get a positive impetus and grows under peer pressure. The success of introducing the above practices is clearly evident in various review results over the past years as presented below.

- National Assessment and Accreditation Council (NAAC) re-accredited the University in 2008 with a score of 3.61, and in 2014 with a score of 3.68, on a 4-point scale.
- National Institute of Science, Technology and Development Studies (NISTADS) of CSIR placed Jadavpur University at fourth rank among the top 50 Universities of the country based on *h*-index of publication. The present *h*-index of the University is 149 (Scopus).
- The UGC evaluation of the University with Potential for Excellence programme in Jadavpur University (which was one of only five Universities in the country to receive this grant) highly commended the work by the University and sanctioned grants to carry forward the good work.
- Jadavpur University has lauded for its excellent performance in the country in the World Bank sponsored TEQIP programme.
- Jadavpur University was one of only eight public institutions of higher education selected by the Empowered Expert Committee of the UGC for award of the status of "Institution of Eminence" in 2018.
- Jadavpur University was among ten State universities chosen for the Rs. 100-crore grant from the Rashtriya Uchchatar Shiksha Abhiyan (RUSA), under the component "Quality and Excellence in Select State Universities" in 2018.
- The NIRF Rankings 2020 accorded it the fifth rank among all Universities in India, placing it first among all State universities.
- According to the QS World University Rankings 2021 (released on 11 June 2020), Jadavpur University is among the top 14 institutions in India, and only one of two State universities in the list, with a global rank in the 651-700 band.

(See <https://www.topuniversities.com/universities/jadavpur-university#wurs> for details.)

- In *Nature Index* Jadavpur University is the only State university within the top 20 in India, placed 17th. (See: <https://www.natureindex.com/institution-outputs/india/jadavpur-university-ju/519c77c8140ba02b16000000> for details.)

Good Practice # 2

Providing critical support to differently-abled individuals and equal opportunity for all

1. Objective

- To provide equal opportunities to differently abled persons in higher education
- To equip with facilities to provide access to disabled persons
- To explore suitable placement opportunities for differently abled individuals and to prepare them for this
- To promote teacher preparation program for differently abled individuals

2. Context

The “Persons with Disabilities Act 1995” indicates that the citizens with disabilities should have equal access to education. In order to develop awareness amongst the differently abled individuals on higher education and also for career guidance and counselling the University has taken several actions and founded separate cells. The admission of differently abled individuals in various courses is facilitated and government guidelines in this regard are followed. Counselling, guidance and assistance are provided to the differently abled to establish them in their career.

3. Implementation

- The University has a Centre for Studies and Rehabilitation of Differently Abled Persons, to extend social service to the *students with special needs* in the University as well as to the society at large. The service from the Centre is mainly rendered through two directions- research works and special support to the *students with special needs* for higher education.
- An “Audio Book” library has been developed by the Centre with proper library management system (like accession no.) for the visually challenged students in the Departments of Bengali English, Sanskrit, International Relations and History, both in under-graduate and post-graduate levels as per the syllabus of Jadavpur University.
- The Centre has started free Personality Grooming and Communicative Language Course (Foundation Course) for the *students with special needs* of our University.

- The Centre has 15 independent computers that support JAWS (Screen Readable Software) to conduct free computer training programme at the basic level from time to time especially for the *visually impaired students* of our University.
- Special education and training programs for the teachers to handle differently abled individuals are planned.
- The University has made arrangement for physical access of differently abled students and individuals in important administrative and most of the academic buildings. Scribes are provided for the disabled students of the University from time to time as per their semester examinations.
- The SC/ST cell helps in implementing, monitoring and continuous evaluation of the reservation policy for effective implementation. It also provides information on different fellowship and other activities to the SC/ST candidates.

4. Evidence of Success

- Presently, there are more than hundred differently abled individuals, who are in the roll as students.
- The “Audio Book” library has a total of 166 CDs and DVDs and 703 Audio cassettes as Audio Book. At present one Book-reader (associated with All India Radio, Kolkata) and one Voice Editor have been appointed on temporary basis for the preparation of audio books.
- Certificate in Fundamentals in Computer Applications (CFCA), as well as the same course for the students with visual impairment (CFCA-VH-I, CFCA-VH-II), Certificate in Communicative languages (CCL) have been offered for the students with physical and social disabilities.
- A database of the differently abled students of Jadavpur University of the year 2008-2012 is going to be completed which will help in future coordination with them.

Good Practice # 3

Promoting a culture of innovation and entrepreneurship among students

1. Objective

- Creating awareness among the students of the University regarding entrepreneurship as a career option.

- Conduct training programmes and special lectures in the field of entrepreneurial skill development
- Develop entrepreneurship related course curriculum to incorporate in engineering programmes
- Provide guidance and facilities to first time entrepreneurs during gestation.

2. Context

An Entrepreneurship Development Cell has been created as a joint initiative of university students and the Business Incubation Centre, Jadavpur University, to nurture and inspire the creative minds of the students in the university by providing them the opportunities to showcase their ideas and helping them in turning their ideas into entrepreneurial ventures.

The initiative to form an Entrepreneurship Development Cell started in 2016. The Cell was formed on 20th July, 2016 through a workshop held in Salt Lake Campus in presence of Professor Suranjan Das, Vice-Chancellor, Jadavpur University, Professor Asis Mazumdar, Member Secretary, Business Incubation Centre (MSME), Jadavpur University, and other distinguished faculty members and officers of the university and well-known personalities in the start-up community.

3. Implementation

- Organizing events and workshops to create awareness about entrepreneurship
- Mentoring the aspiring entrepreneurs by providing necessary guidance on business planning; entrepreneurial finance; start-up and business related laws; app, software and website development etc. by arranging events and bringing in suitable mentors
- Training the interested students about investing through virtual stock markets
- Organizing Business Plan competitions and helping students to prepare for Business Plan competitions organized by other institutes such as IITs and IIMs
- Overall grooming of the members

4. Evidence of Success

The above practice has been newly introduced in the current year and the evidence of success is yet to be observed.

IV. Report on the impact achieved so far

The impact of the EQUAM-BI project is the experience gathered by the working members through various meetings, interactions, and disseminations regarding quality parameters with international and national members. As the quality measures at JU are implemented through the University IQAC and the working members of the project are all directly related to the IQAC activities the impact has fallen on maintaining the quality parameters in the University. The University could maintain its high quality of standard as reflected through the ranking results achieved in the NIRF (JU has continued to hold 5th or 6th position among the Indian Universities in the last three years of ranking) and also in the global ranking frameworks of THE or QS rankings (Times Higher Education Rankings 2020: ranked in the 601-800 band among all Engineering & Technology institutions in the world, 144th among Asian universities; QS World University Rankings 2020: highest ranked State University in the country, with an Asian rank of 136).

The University continued to excel in research in various fields and as many as 30 faculty members of the University featured in the list of top 2% scientists of the world as published by the researchers of Stanford University. Greater international collaboration in research has been achieved and over fifty MOUs (Memoranda of Understanding) have been signed in the last five years in these directions. Prestigious academic programmes (like UPE, TEQIP, DST-PURSE, EU Projects, UKIERI, SYLFF, Erasmus Mundus, and the UN-supported Global Change Programme, among others) had been successfully implemented.

Measures taken during the ongoing Covid-19 pandemic include the following:

- (i) Revamping the university website – a process that is still underway, and where inputs have been made on the basis of the Toolkit.
- (ii) Since classes are being held online, individual teachers and departments/schools have created repositories of study material, recorded lectures (audio and video), and other material which will be useful in future for both online and offline classes.
- (iii) Where laboratory-based classes are concerned (especially in the Science and Engineering & Technology faculties), videos have been created by teacher and research scholars.
- (iv) There is now a much greater use of digital resources, including those not created within JU.
- (v) It has become possible for students to benefit from teachers from other universities, both in India and abroad through online lectures, discussions, conferences, and seminars. Many of these have been uploaded on platforms like YouTube for future access.

(vi) There has also been greater participation of students and teachers in such online sessions – workshops, seminars/conferences, lectures – and there has definitely been exposure to a wider range of scholars from diverse institutions on part of students.

(vii) The regular teaching-learning process has become more collaborative, with students and teachers joining hands to create, locate, and share digital resources.

(viii) Many administrative tasks are now being done online, or through a mix of online and offline modes.

(ix) Research activities, though hampered, are still continuing. Please see the Appendix for some recent research outcomes that have received public recognition.

V. Participation in other projects where EQUAMBI has been present in some way

A vital component of JU's quest for excellence has been the Government of India's World Bank-assisted TEQIP (Technical Education Quality Improvement Programme), which has been operational in the Faculty of Engineering & Technology at Jadavpur University (FET-JU) since 2003. The broad objectives of that phase of the programme as defined officially by the Government of India were as follows:

- To create an environment in which Engineering Institutions selected under the programme can achieve their own set of targets for excellence and sustain the same with autonomy and accountability.
- To support development plans including synergistic Networking and Services to Community and economy of competitively selected institutions for achieving higher standards.
- To improve efficiency and effectiveness of the technical education management system in the States and institutions selected under the Programme.

TEQIP Phase I was completed in 2012, and Phase II in 2017. Under Phase-III of TEQIP (2017-2021), the programme has been fully integrated with the Government of India's Twelfth Five-Year Plan objectives for technical education as a key component for improving the quality of engineering education in existing institutions with a special consideration for low income states (LIS) and special category states (SCS) and support to strengthen affiliated technical universities to improve their policy, academic and management practices. Stress has been laid to improve quality and equity in engineering institutions in focus states including seven Low Income States (LIS), eight states in the North-East of India, three Hill states in Himachal Pradesh, Jammu, Kashmir, Uttarakhand and Andaman and Nicobar Islands. Only Government or Government-aided institutes are funded in this

phase. There are ‘mentor-mentee twinning’ partnerships between institutions in focus states (as mentees) and institutes with proven credentials during earlier phases (as mentors).

After successfully completing Phase I and II, FET-JU is now working as the mentor institute for two mentee institutes, one from the North-West and another from the North-East of the country. Till date all the performance audits of TEQIP-I, II and III of FET-JU reported excellent performance with fulfilment of most of the defined targets.

VI. Concluding remarks

It will be apparent from the above that the EQUAM-BI Project has had a positive impact on Jadavpur University’s quest to improve quality in all aspects of the University’s functioning, and to try and set benchmarks to sustain such quality-enhancement efforts. However, the ongoing global pandemic has been a substantial barrier to achieving the proposed targets of the EQUAM-BI Project, and the uncertainty of the pandemic’s course and eventual outcome, which still prevails, has made it doubly difficult to make plans for the future. There is a sense within the larger JU community that physical classes, research, and other activities need to be resumed soon. The regular physical interaction that is the lifeblood of any educational institution cannot be indefinitely substituted with online modes of teaching-learning. Such pre-pandemic modes of interaction are also necessary if the suggestions and action points of the EQUAM-BI Toolkit are to be discussed and implemented on the ground.

In this context, it needs to be mentioned that an urgent vital need for Indian HEIs is the development of a software which will enable the analysis of large amounts of data, enable data-driven decision-making – especially when it comes to quality and benchmarking – and enable institutions to learn from each other – not just from their successes and best practices, but also from their failures and inabilities to implement policies. The development of such a software, which should be open-source, customizable, and scalable should be the next logical follow-up to the EQUAM-BI Project. The Toolkit that has been developed from this present project is undoubtedly useful, but creating software specifically designed to help enhance quality, and meet benchmarks, may be one way to ensure that all stakeholders – students, teachers, and other members of the extended family that adheres to any Indian university – become participants in the quest for enhancing quality and creating viable benchmarking strategies for all Indian universities.

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