

University of the Philippines
LOS BAÑOS

PRIMER ON FLEXIBLE LEARNING



University of the Philippines Los Baños
Primer on Flexible Learning

Development Committee

Chair Dr. Greg T. Pawilen **Co-Chair** Glenn S. Lubuguin

Members Dr. Sue Liza C. Saguiguit, aProf. Jickerson P. Lado, aProf. Prince Kennex R. Aldama,
Dr. Pamela A. Custodio, aProf. Nephtaly Joel B. Botor

Graphics and Layout Artist John Glen S. Sarol

Photographers Christopher V. Labe, Vandolph R. Maningas



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Foreword: Flexible Learning as the New Normal

Even as the world continues to wrestle with the COVID-19 enigma, the inevitable is already written on the wall: there is no going back.

Early this year during the UPLB Executive and Management Committee planning workshop, we plotted a vision towards Education 4.0 and a Food Systems Framework. I rationalized this direction as follows:

“ I do not want UPLB to be “business-as-usual” and simply work on endeavors that UPLB has been traditionally associated with.

As an academic and research institution, I want UPLB to constantly challenge itself and to be brave to take on difficult but important work that will aid our country’s development goals.

After all, this is what is expected from us, as part of the University of the Philippines System and as our country’s national university.”

Never did I imagine that these thoughts would reverberate with such powerful relevance today. Never did I imagine that our vision, specifically of Education 4.0 would suddenly become an urgent necessity rather than a distant dream.

Today, in the face of an emerging, unfamiliar social order, there is a widespread notion that education may come to a halt as the threat of COVID-19 continues to loom unpredictably. To me, this is suggesting the future to wait. Unfortunately, the future does not do so. In fact, I believe that it is now, more than ever, that our education system must not be compromised. I believe that it is in this historical moment of uncertainty that UPLB must take its leadership role more resolutely.

Indirectly, we have already started so. The vision for UPLB Education 4.0 emphasized imperatives to adapt teaching-learning with effective utilization of information-communication technology (ICTs), aligning skills and competencies targets to meet new requirements of modern industry, focusing on problem-solving, social and process skills through project-based teaching approaches, promoting values of accountability, time-management through self-help instruction and other means of more deeply infusing technology into instruction.

These features of an educational system for the future has become the focus of recent initiatives in the wake of the COVID-19 pandemic. There is now massive move to shift the Philippine educational system into remote teaching and learning systems premised on the belief that home education is the most feasible alternative to continue the development our youth while regulating public health risks.

Unfortunately, remote learning has various limitations and requires certain compromises, some of which may not be negotiable. For instance, the question on effective skills training without face-to-face instruction persists without any clear resolution yet. Furthermore, UPLB treats remote learning just as one dimension of a more sustainable solution. In the current social context, remote teaching and learning is just a temporary response to the immediate challenges of COVID-19 pandemic. Flexible learning, the more extensive system of education, must be the more long-term goal as it is a permanent necessity for the future.

While remote learning emphasizes distance education modality, flexible learning provides options in delivery systems and requires instruction that can effectively combine media-based with face-to-face interactions, modular with traditional curricula. As such, it will empower students to select how, what, when and where they learn at their own pace and place. It will allow them to combine work, study, and accomplish their learning tasks.

Professors and mentors, on the other hand, may deliver content using a range of options including adaptive learning, remote learning, distance learning, online learning, blended learning, project-based learning, modular instruction, individualized instruction, and other innovative modalities that will allow customization of teaching content and delivery depending on the needs and contexts of the students. For both student and teacher, flexible learning can reduce health and security risks, while developing a workforce competent in their fields of specialization and in utilizing information-communication technologies, which is a staple of the new normal.

Since flexible learning is the centrepiece of Education 4.0, UPLB has already laid the groundwork for it. For the last five years we have made substantial investments in improving our technological infrastructures, which include modernizing our library and knowledge management systems, securing our fiber optics and wifi connectivity as well as database, and developing state-of-the-art multi-media management production, which boosts our capacity to produce information-communication-education materials. In research and extension, we have developed better database management systems to enhance access to knowledge products and related analytics.

But even as we have already made strides towards flexible learning, the challenges are still colossal. Pending deliverables, derailed projects and programs, other activities stalled by the pandemic, in addition to new other policies and systems that need to be put in place in light of the unprecedented times.

The most urgent and critical task is curricular development. This primer is part of the process to facilitate the difficult transition from familiarity to seeming uncertainty in our instruction. We need to adapt our methods and pedagogies, our practices and principles, our educational customs and beliefs to truly transcend this crisis and prepare for similar ones to come.

The daunting duty is shared by every educational institution worldwide, but in the Philippines, it is felt more so by UP as a national public service university. And I am committed to prioritize and fast-track faculty and staff development, increase funds for complementary equipment, rationalize our administrative protocols and further upgrade physical and technological infrastructure in support of our shift to flexible learning and consistent with our Education 4.0 thrusts.

In the past months we have been made to realize the frailty of our systems against natural perils. And given the magnitude of acceptance and change we are being asked to embrace, there is heightened sense of paranoia and mistrust among institutions, groups and individuals.

This is also the sentiment we may come to confront as we embark in this curricular shift and evolve into a flexible learning system. In the process, there will be criticism and dissent, apprehensions and doubts, even nostalgia. Since there is little historical precedence from which to draw wisdom and confidence from, it would not be surprising for cynicism to rear its ugly head along the way.

These sentiments will linger in the foreseeable future because the apprehension to abandon old ways and accept new ones is inherently human. But the spirit of resilience is also natural and the spirit of collegiality is intrinsic to our profession. Hopefully, they will soar higher than pessimism and negativity so that we can reach greater heights.

Because there is no going back, there is only going UP.


FERNANDO C. SANCHEZ, JR.
Chancellor



Chapter I

Understanding the Concept of Flexible Learning

A. Defining Flexible Learning

Rapid and revolutionary advancements in ICT have dramatically altered the educational landscape in the 21st century. This has motivated universities worldwide to explore new methods and resources for technology-based instruction. As a result, pedagogies, curriculum designs, and evaluation methods are now compelled to evolve and cope with technological developments.

The opportunities and challenges of achieving modern educational systems has become even more pressing and critical in the light of COVID-19 pandemic. For UPLB, a flexible learning system is the ideal response and sustainable solution.

Flexible learning is a learner-centered system that supports the use of various learning delivery modes that are useful, accessible, and responsive to needs of the learners. It has the following qualities:

- **Learner-Centered or Personalized.** Existing literature on flexible learning emphasizes the primacy of students' choice in various areas of study. The responsibility of learning shifts from the teacher to the student because they can now decide about when (pace), where (place), and how (mode) they can best learn.

- **Pace.** The speed by which you will be able to study

- **Place.** The location where your learning takes place such as in a classroom, at home, and even while travelling.

- **Mode.** The manner through which technologies facilitate your learning like online, blended, distance, remote, etc.



• **Inclusive.** Flexible learning is designed to meet the needs of a diverse range of students and allow them to combine work, study, and family matters (Higher Education Academy as cited in Ryerson University). As such, flexible learning systems remove barriers that prevent learners from accessing or attending specific educational contexts. It also recognizes that every learner has unique commitments and responsibilities in other areas of life and must therefore be given extensive options to balance education with other demands. The eight principles of flexible learning that are “central to the implementation of a flexible learning policy” (Hart, 2000) reflect its inclusive character.



• **Collaborative.** Flexible learning engages the students in “reshaping teaching and learning processes” (Ryan and Tilbury, 2013). The relationship between students and teachers therefore becomes even more collaborative. As such, students, families, faculty members, and educational institutions have shared roles in making flexible learning work.

a. Students assume responsibility for their own learning; able to self-advocate for the delivery method that serves their learning best; and more skilled at self-regulation in terms of goal setting and self-monitoring (Collis, 1998; Zimmerman, as cited in Bergamin et al., 2012)

- b. Teachers promote active learning and emphasize “managing the learning process than being the primary provider of learning material” (Ryan & Tilbury, 2013).
- c. Institutions establish enabling technological and policy support for a range of learning options and maintain a framework that ensures quality of learning experience across different forms.

Flexible learning encompasses various elements, terminologies, and typologies. Palmer (2011) pointed out that this can “lead to the conclusion that nearly any teaching and learning configuration could claim to be flexible in some regard.” However, equating flexible learning to terms such as distance education, blended learning, and asynchronous learning can lead to “conflation of educational typologies” (Palmer, 2011). To make matters clear, we need to distinguish flexible learning (our educational goal) from the technology or economically driven strategies, also called “flexible delivery” (Hart, 2000).

B. Instruction Delivery Modes in a Flexible Learning System

The mode of instruction refers to the way content is transmitted to target learners. A flexible learning system optimizes a range of delivery modes. These include digital sources (e.g., computers, smartphones, and the Internet), non- digital sources (e.g., modules and textbooks), or a combination of both. A number of terminologies are used in referring to diverse flexible learning modalities:



- Blended learning refers to instruction undertaken using a combination of physical (i.e. face-to-face interaction) virtual delivery systems (i.e., online learning materials)



- Flipped learning is a learning methodology that prioritizes active learning during class hours by asking students to read lecture materials or view recorded presentations and videos at home.



- M-learning refers to the use of mobile tools as learning platforms and resources.



- Distance learning is a form of learning that is characterized by physical separation of teachers and students during instruction, use of various technologies to facilitate student teacher and student-student communication, remote submission of requirements, and other web-based interactions.



- Virtual education is the combined use of computer hardware, software, and educational theory and practice to facilitate learning.



- Adaptive learning is personalized, customizable approach to instruction using technology providing students with different experiences than they would have in standard online or hybrid courses.



- Online learning is the use of Internet-based sources such as online journal articles, online instructional video clips, net-based software, and social media. It is highly flexible but requires the learners to be self-motivated and self-regulated in their learning.



- Remote learning is learning that happens at home but follows the scheduled class times. It therefore requires more accountability on the part of the learner.



- Modular instruction is the use of learning modules (course modules and lesson modules) for teaching and learning. For flexible learning, modules can be online interactive modules or printed self-instructional modules.

C. Learning Structure for Flexible Learning

Flexible learning structures can either be synchronous or asynchronous. For UP, these structures are defined as follows

- Synchronous learning is real-time communication between teachers and learners (e.g., lectures, webinars, and teleconferences using platforms such as Zoom, Google Meet).
- Asynchronous learning is non-real-time communication between teachers and learners – from text-based (basic email, Facebook Messenger, Viber group, etc.) to online discussion boards in different platforms (UP's Learning Management Systems (e.g., UVLE, VLE), Canvas, Google Classroom, Edmodo, etc.).

D. Learning Context for Flexible Learning

Understanding the context of learning is essential in designing effective learning experiences in a flexible learning system. Learning contexts are categorized as follows:

- Residential context refers to face-to-face and lecture-based learning among students (i.e., learning sessions in a common physical time and space).
- Virtual context is the online interaction between the teacher and the students.
- Remote context has home as the learning environment.



Chapter II

Designing Flexible Learning

One of the pressing concerns among educators and higher education institutions in shifting to flexible learning is simply where to begin. There has been misconceptions that it is just a simple matter of utilizing technology for teaching and learning. Hence, many colleges and universities started to invest on training of faculty and staff on blended learning, online learning, and other alternative delivery modes of instruction.

However, flexible learning is not just about the creative utilization of technology. It primarily involves redesigning curricula so that these could fit the available technology while adapting to learner needs and changing social needs. For UPLB, shifting to flexible learning is an integral component of its Education 4.0 goals. Designing flexible learning systems is therefore a dynamic process composed of component stages and activities.



Figure 1. Process for Developing a Flexible Learning System

A. Situational analysis involves the detailed examination and planning of curricular design based on the context into which the curriculum will be executed (Print, 1993). The data gathered from the situational analysis will help faculty members and administrators make curricular and instructional decisions to prepare the university for

flexible learning. Having valid and reliable data is important in order to provide an insight on the resources available to individual students and university personnel. The identified challenges and gaps will also help determine specific initiatives for flexible delivery of learner support services. Specifically, data on the following considerations are essential to developing a flexible learning system:

1. Availability and access to technology (e.g., in the case of Internet-mediated services) or logistical support (e.g., in the case of correspondence modalities involving courier services)
2. Knowledge and skills in using technology (i.e., how comfortable are the clients and the service providers in using the available technologies to allow service delivery)
3. Nature of the business process (i.e., which services can be delivered on a purely remote basis, which processes necessitates physical presence, which processes may be temporarily stopped/placed on moratorium, and which are essential services)



Things to Consider in Conducting Situational Analysis

University

- Analyze educational system requirements and challenges from academic policies, advisories, and memoranda from the UP System and UPLB
- Identify available resources and facilities to support flexible learning

Faculty

- Assess the understanding of faculty members on flexible learning and its various instructional delivery modes
- Analyze the capacity of the faculty to design instruction for flexible learning
- Identify faculty members who can teach using various technologies and those who are used to traditional, face-to-face classroom instruction

Students

- Identify how many students are enrolled in each course
- Identify how many students have access to the Internet
- Know if students have gadgets for learning at home
- Describe the profile of the students (e.g., degree program enrolled, year level, graduating or not, how many are they in the family)
- Know if the home environments of the students are conducive for learning
- Consider the background, needs, and context of the students who will enroll
- Develop a class directory that includes the address, e-mail, and mobile number of each student

B. Redesigning the curriculum (Program Level). The departments and the colleges need to review and redesign the curriculum to prepare for flexible learning mode. Print (1993) identified four elements of a curriculum, namely: curriculum intent, content, learning experiences, and evaluation.

1. Analyzing Curriculum Intent – This refers to re-aligning philosophy and curricular objectives with institutional and program outcomes of all degree programs offered by the university and formulating curriculum intent that will also determine necessary administrative support system.

Checklist Guide for Analyzing Curriculum Intent

- Analyze the curriculum intent considering the present context, needs, and conditions of the students and faculty
- Discuss how the curriculum intent can be achieved effectively and efficiently through flexible learning
- Ensure that all program outcomes are suitable for flexible learning; outcomes are knowledge, skills, attitudes, and values that enable learners to perform complex tasks, functions, and life performance roles
- Decide on the curriculum intents that should be modified to meet the requirements of flexible learning

2. Analyzing Content – Redesigning curriculum involves reimagining essential knowledge, skills, and values that students need to learn from their chosen degree program. In a flexible learning system, the following considerations are essential to content analysis:

- a. Analyzing the pre-requisites and co-requisites of each course
- b. Checking the feasibility of offering the courses based on the current situation
- c. Reorganizing curriculum design to provide students with more choices of courses to enroll

Checklist Guide Questions for Program Preparation

- Which courses can be entirely delivered remotely and which of these can be offered in the semester?
- Which courses should have a face-to-face component and can be delivered in a blended mode?
- Which courses cannot be delivered remotely or in blended mode but can be redesigned to be amenable to remote learning and blended learning at a later date?
- Which courses cannot be delivered either remotely or in blended mode? What protocol should be in place in order to ensure safety of students if they will have to go to school for these courses? What arrangements will be made for those who are unable to do so?
- What is the reasonable student load in a remote learning mode?
- What is a reasonable number of students per class in a remote learning mode? Can the Unit afford to offer more sections if needed? If not, can the course be offered in a large class with Teaching Assistants (TAs) and Teaching Fellows (TFs)?
- Which courses can be team-taught (with the teaching load divided among the members of the team)? Which courses may be delivered with TAs/TFs?
- Which courses may be entirely delivered remotely and offered in a large class format? How many TAs/TFs will be needed for these courses?
- Are there courses in the program that can be designed for completion in 7 weeks and taken sequentially within the semester with final grades given at the end of the semester? This is to enable students enrolled in major courses to focus only on two to three courses in the first 7 weeks of the semester—or 6 to 9 units of the student's 15 to 18 enrolled units in the semester—followed by another two to three courses in the next 7 weeks.

3. Designing Learning Experiences. This refers to the manner by which the curriculum will be implemented and is therefore a question of learning strategies. In a learner-centered flexible system, various instructional technologies must be utilized to give options to learners. Important considerations are the following:

- a. Selecting appropriate instructional delivery modes that could be adapted for each course.
- b. Identifying alternative learning experiences that could be provided for immersion and laboratory courses. If there is no alternative, and if it is necessary for the students to attend face-to-face classes, consider these options: (1) offering the course in the next semester or academic year, or (2) adopting blended learning, which means students can come to class by small groups at a given schedule while the rest of the activities will be done online or by modules. If option 2 is adopted, it is important to ensure the safety of students coming to attend laboratory classes in the University.
- c. Identifying technology that could be used to enhance the learning experiences of the students
- d. Deciding on ideal number of students per class based on the nature of the course and the competencies to be accomplished
- e. Adopting a learning management system (LMS) to support teaching and learning
- f. Training faculty and students on the use of the LMS

4. Rethinking Evaluation. This refers to terminal program requirements such as thesis, practicum, special problems, and special projects. All of these are designed in the context of a residential mode. In flexible learning, the following could serve as a guide to make modifications:

- a. Identifying alternative assessments for practicum courses. If none, the Colleges and the University should develop measures on how to ensure the safety of students doing their practicum
- b. Identifying types of projects and problems that students could work on considering the present situation

- c. Utilizing technology to help students in their thesis and practicum
- d. Rescheduling practicum and immersion requirements at a later semester, if necessary

5. *Creating a Curriculum Map.* A curriculum map is a graphical description or a synopsis of curriculum components that can be used to align courses with learning outcomes (Tan & Yahaya, 2019). It is used to show coherence in the sequencing or design of the curriculum content.

A. Based on the results of the situational analysis, and after redesigning the curriculum, it is best for colleges and departments to develop curriculum maps showing what instructional delivery modes for flexible learning could be used for every course offered.

Instructional Delivery Modes

Courses

Online Learning

Modular instruction

Project-based Learning

Blended Learning

Hybrid

Course
101

Course
102

Course
103

Course
104

Course
105

<i>Fourth Year</i>	
<i>1st Semester</i>	<i>2nd Semester</i>

The curriculum maps should be approved through the usual channels of curriculum approval and made available to students to help them decide on selecting the courses they will take. It would help guide the development of individual courses and syllabus. It would also be useful for program coordinators, department chairs, and deans in monitoring the implementation of the courses offered.

C. Redesigning Individual Courses. This phase involves redesigning instruction to meet the requirements of flexible learning and develop self-regulated independent learners. Specifically, faculty members will develop syllabus, instructional materials, learning packages, modules, worksheets, activity sheets, and assessment tools of their respective courses. Scheduling synchronous and asynchronous learning activities should also be done in this process. Likewise, instructional delivery modes such as online learning, remote learning, blended learning, adaptive learning, modular learning, and other modalities should also be determined during this phase. Essential activities during this phase are:

- Aligning course learning outcomes for flexible learning
- Organizing and streamlining contents to focus on most essential topics and competencies
- Designing synchronous and asynchronous learning activities with emphasis on learning activities that promote active learning
- Deciding on time schedules for synchronous and asynchronous learning activities and ensuring that students will have sufficient time to perform learning activities
- Developing assessment tools and evaluation criteria

- Identifying references and online educational resources (OER) that will be needed in the class
- Identifying class rules, especially in submitting assessment, working on assignments, and other class requirements
- Providing study guides and instruction for monitoring of students' progress and feedback
- Providing modes and schedule of consultations

In completing the syllabus design, faculty members must keep in mind that students will study in their homes (remote learning). Therefore, it is essential to specify all necessary guidelines for students to follow.

<i>Syllabus Template</i>			
<i>Course Title</i>			
<i>Course Description</i>			
<i>Course Number</i>			
<i>Course Outcomes</i>			
<i>Instructor</i>		<i>Consultation Schedule & Contacts</i>	

<i>Contents</i>				
<i>Learning Outcomes</i>	<i>Contents</i>	<i>Learning Experiences</i>	<i>Schedule & Time Allotment</i>	<i>Assessment Tools</i>
One outcome is enough per lesson. You must target the terminal competency	Add links to modules if you are using online modules	Identify if synchronous or asynchronous; You need to describe what you want the students to do per session.	Identify exact dates and time for synchronous learning sessions	Add links if using online learning portfolio

	Identify module titles, lessons, and page numbers if you are using print modules		Consider having flexible time/pace for asynchronous learning activities	Avoid giving too many assessment tools per sessions; Performance tasks and using authentic assessments are highly desirable
Assessment Criteria & Evaluation				
List of References & OER				
Class Rules	Include rules on how to submit requirements, attendance to synchronous sessions, etc.			
Study Guide	This includes some suggestions or advise on how the students can study in the course			

Final course syllabus can be evaluated based on the following criteria:

- Establishes consistency in course delivery
- Involves active learning (i.e., learning by doing)
- Enables interaction among students (e.g., learning through teamwork, projects, discussion forum, if feasible)
- Incorporates a mechanism for ongoing formative assessment and prompt feedback (e.g., automated feedback)
- Includes a mechanism for one-on-one, on-demand assistance from highly trained personnel (e.g., TA, GA, peer tutor)
- Provides structure and sufficient time to perform learning activities

-  Includes a mechanism for monitoring student progress and intervention when necessary
-  Includes a mechanism for measuring learning and completion

D. Providing Instructional and Administrative Support. In a flexible learning environment, UPLB must ensure that faculty, staff, and learners can access essential instruction support utilities. These support services include:

1. Establishment of a Learning Management System (LMS) and providing necessary capacity building for its use and maintenance
2. Making library resources available online
3. Reviewing academic policies and ensuring that they support students' learning in a flexible mode
4. Ensuring that guidance and counseling services are available to students, either online or by phone
5. Providing students with learning packages that include syllabus, lecture notes, handouts, rubric for assessment, guides for projects, additional activity sheets and worksheets, additional readings, and course module
6. Making program advising more efficient to provide guidance to students in selecting their courses to enroll
7. Improving registration systems for online or remote admission and enrollment and online payment of tuition fees

Recently, the Office of the Vice President for Academic Affairs through Memorandum No. 2020-68.2 established the following academic support programs:

- a. Learning Assistance Grants to aid students in need of equipment and subsidy for connectivity service
- b. Peer Learning Groups and Networks or a network of student assistants to support students in remote learning contexts

1. Student Wellness System and Networks to provide information, referral systems, and mental health services to students with additional needs
2. Student Helpdesk and Guidance to provide academic, emotional, and legal support to students in special circumstances (e.g., career, domestic violence, legal concerns)

E. Implementation and Monitoring. Transitioning to a flexible learning system would entail massive changes in the education system and would necessitate massive leveling off among stakeholders. This would require extensive orientations and discussions among faculty members, students, and parents at various phases of implementation. Since the shift to flexible learning would be gradual, this would also need periodic public information activities. These orientations must not only explain policies and features of the new system but should also help reduce anxieties and foster confidence in flexible learning. They must also create a spirit of shared goals, outcomes, and collaboration to ultimately help learners adjust to the challenges of the new normal.

1. Faculty and Staff Orientations. Aside from explaining new requirements and expectations, orientations among faculty and staff must promote reflection on how to maintain standards of excellence while at the same time increasing sensitivity to learner conditions and exploring innovative new methods and solutions. Topics for faculty and staff orientations may include:

- a. Flexible learning and its position vis-à-vis other curriculum designs, educative approaches, or instructional methods and strategies
- b. Preparing and implementing lessons (e.g., selection and compilation of learning resources, using the art of questioning, asynchronous and synchronous deliveries using available technologies, authentic assessment)
- c. Coaching learners (e.g., fostering independent learning, developing higher order thinking skills, nurturing the psychosocial well-being of the learners)
- d. Using LMS effectively in facilitating the learning process

2. Orientation of students. For students, the orientation aims to empower learners to maximize their individual potentials in a flexible learning environment. Some topics include, but not limited to:

- a. Flexible learning: Benefits and challenges to the learner
- b. Skills necessary in self-directed and independent learning (e.g., skills in interaction with learning content, interaction with the teacher, and interaction with classmates)
- c. Maximizing the power of collaboration (e.g., exploring the use of print, digital, and online technologies to facilitate group work)
- d. Learner support systems that can help them in flexible learning
- e. Using LMS effectively in the learning process

3. Orientation of parents. For parents, the orientation aims to engage them as a primary support system to their children and to level off their expectations about the goals of higher education. Some topics include, but not limited to:

- a. Family as a basic unit of care for the learner (e.g., how to support their children academically, psychologically, socio-emotionally)
- b. The goals and affordances of flexible learning (e.g., why is there a need for flexible learning; why is it needed)
- c. Parents as partners of higher education institution (e.g., how can parents connect with the universities' academic and non-academic services)



Chapter III

*Learner Support in
Flexible Learning*

Learner support is an integral component of any education system most especially in learner-centered systems like flexible learning systems. In any home-based scenario, students are not only adjusting to academic demands but are also confronted with domestic and community concerns. In other words, learners in remote environments are expected to take up tasks on top of their academic responsibilities.

Ensuring student welfare and well-being is therefore a principal imperative of any flexible learning system. This means mobilizing resources and setting up policies and administrative structures to provide the following:

1. Learner needs support to address contextual issues and concerns that are not necessarily academic but will influence achievement of learning goals (i.e., mental health)
2. Content support to provide access to available learning resources and facilitate learners' interaction with the learning content
3. Institutional support to assure awareness and understanding of new policies, processes, and programs of the learning institution
4. Technological support in the form of infrastructures and learning management systems to better deliver academic and non-academic programs.

Majority of HEIs have these existing programs and services aimed at promoting holistic student development. The immediate challenge is the need for administrative restructuring and reprioritizing resource allocation to expand and enhance these programs and services in order to address the current situation.

A. Learner Support and Well-being

Fostering holistic student development requires responsive and equitable learner support. Essentially, learner support should aim for enhanced well-being of learners. Well-being is defined as the presence of essential elements necessary for thriving and flourishing and the state "in which body, mind, and spirit are integrated in a purposeful manner with a goal of living life more fully" (Myers, Sweeney, & Witmer, 2000). Table 1 provides an overview on how learner support services align with various dimensions of well-being.

Table 1. Learner Support Services and the Dimensions of Well-being

<i>Dimensions of Well-being</i>	<i>Description</i>	<i>Examples of Learner Support Services</i>
Academic	Curriculum, pedagogy and instruction, and the learners' interaction with the learning content.	Academic advising; learner resource centers; library resources; learning hubs
Physical	Basic physiological needs and health	Health services (general, sexual and reproductive, mental health); sports and recreation facilities; food and nutrition services
Psycho-social	Psychological and social environments, their domains, and the interactions of these domains	Psycho-social support extended by faculty and staff in every academic unit; cultural education for international students; counseling and guidance services; student activities; gender and development services; volunteering opportunities
Material	Basic material needs that enable them to go about and survive their academic life	Scholarships and grants; other financial aid; student housing

B. Learner Support in Emergency Situations

Unexpected circumstances such as emergencies and disasters often change teaching-learning interactions by:

- Altering the learners' living conditions and jeopardizing their pre-existing capabilities to survive and cope on their own
- Challenging institutions, which predominantly serve as the learners' core support system—families, schools, governments

- Taking resources away from the usual support services and investing them on addressing non-normative requirements and stressors

Thus, it is essential to establish emergency support mechanisms to assure continuity of learning activities.

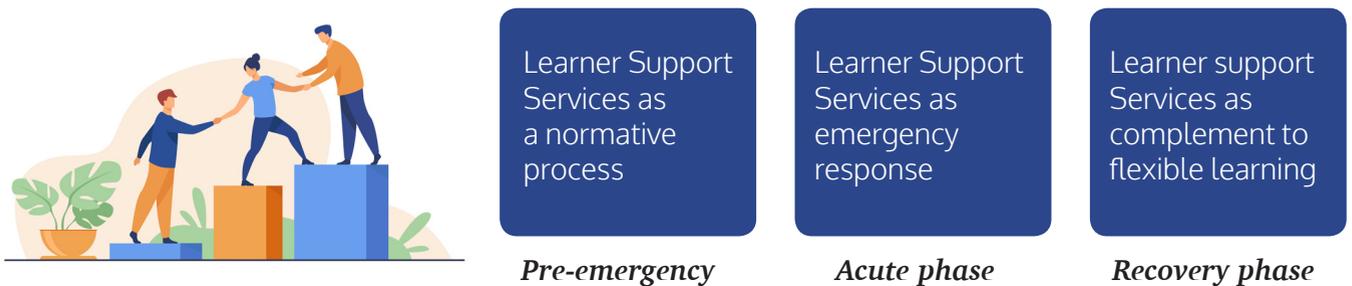


Figure 2. Learner Support Services across the emergency timeline

Pre-emergency phase. The most essential safety and learning support services in the University are provided by the University Health Service (UHS), University Police Force (UPF), the Office of the Vice Chancellor for Student Affairs (OVCSA), and others. The services that they offer are primarily done face-to-face

Acute phase. As an effect of the community quarantines following the COVID-19 pandemic, all essential services were transformed into emergency response services. An exemplar model in learner support amid emergencies can be seen on how the UPLB community has collectively responded to assist those students who are stranded in Los Baños. In UPLB, a task force to ensure health and safety protocols was created. The units within OVCSA, in collaboration with other service units, have spearheaded programs in lieu of the typical services provided to cater to students' needs for food (Oplan Kawingan for stranded students off-campus), shelter (Oplan Lingap for stranded dormers), family reunification (Oplan Hatid/Sundo for both local and international students), and psychosocial support (OCG CARES Kumustahan), among others (Office of Public Relations, 2020; UPLB Perspective 2020).

Other units have initiated information services, such as the GendE.R. podcasts and GendER Live! Program of the UPLB Gender Center, which engage constituents to ponder about gender-related issues arising from the pandemic; the OCG Cares' Kumustahan

webinars of the Office of Counseling and Guidance-OVCSA, which tackle positive coping amid the quarantine; and the Tsikiting Stories of the Department of Human and Family Development Studies (DHFDS), which utilizes storytelling as a strategy for information dissemination.

Aside from these emergency response programs, some normative business processes remain to be delivered in remote mode. Documents are processed and routed digitally via emails. Communications are technology-mediated such as using text, calls, email, or messaging applications.

Recovery phase. As national regulations relaxed, HEIs have started turning their efforts to cope with the “new normal,” and learner support services must evolve as complementary components of flexible learning. Some service units have already been operating with physical presence through their skeleton workforce. Health and safety protocols have already been established to regulate limited face-to-face interaction. However, for succeeding months, majority of the students will remain in their homes, thus, there is a need to contemplate about flexible modes of delivering learner support services.

C. Learner Support in Flexible Learning Environments

1. Principles of Learner Support in Flexible Learning Environment

A learner support system in a flexible learning environment is based on principles unique from those that govern services in residential mode:

- **Scaffolding.** In a flexible learning environment, learner support services should be able to assist learners in areas that they are not capable of doing on their own. The learner support service provider is expected to be more mature and more capable in performing a specific task required. This gap between what learners can do on their own and that which they can do better with enough support is referred to as zone of proximal development (Verenikina, 2008).
- **Identity.** In a flexible learning environment, the learner should be able to have direct access to the learner support providers on a “one-on-one” basis (Thorpe, 2001). This means that a direct link between the learner and the individual service provider must be established. For instance, phone, email, and social media contact information of the staff must be available to all stakeholders.
- **Individualization.** In a flexible learning environment, learner support services are tailored fit to the individual need and context of the learner (Thorpe, 2001).

- ***Interpersonal Interaction.*** In a flexible learning environment, the relational dimension of the processes should be preserved and the learner should be able to feel and experience the same warmth as in the usual face-to-face service delivery process (Thorpe, 2001).

In residential universities, learner support services are usually delivered face-to-face, which allows better personal and emotional connection between the service user and the service provider. In flexible learning environments, it is necessary to design learner support services that will provide learners the same quality of psychosocial experience while complying with code of professional ethics and health standards expected in the helping process.

2. Key Areas of Action in Flexible Modes of Delivering Learner Support Services

Many HEIs are residential in nature such that learner support services are also often designed in line with this. Thus, delivering learner support services in flexible learning environments necessitates interventions in the following areas.

a. Engaging the home and the learners' immediate environment in learner support

Most particularly during remote flexible learning, where learners are in their homes, parents and the family as the basic units of care serve as the primary sources of support to the students. This entails orienting the parents on how they can assist their children in a flexible learning environment. Parents should understand the importance of flexible learning, the University's mechanisms in implementing flexible learning, and most importantly their role in helping their children cope effectively.

b. Shared responsibility for learner support within academic units

Student welfare is a collective and shared responsibility by the entire academic community. Hence, it is necessary to establish systems for student welfare support in every academic unit.

Faculty members who have undergone some form of training in coaching and advising their students and in providing basic psycho-social support may be mobilized. Strengthening faculty adviser and student relationship may also provide a first-line of social support to students even when they are off campus.

UPLB has strong ties with the larger community, and involving organizations and communities off campus becomes indispensable. Universities can only provide as much services relative to its resources and internal capacities.

There are other services that may be accessed through the help of the larger community in which the university is situated.

c. Synchronous and asynchronous delivery of learner support

Learner support services can also utilize a combination of synchronous and asynchronous modalities. Tele-support such as tele-counseling, telemedicine, and helpdesk support are also helpful in maintaining prompt and responsive assistance to students who are in need of information or psycho-social services. For instance, service units such as UHS and OVCSA, may intensify the use of their Facebook page to receive appointments and respond to queries. OCG-OVCSA, for its part, has already provided tele-counseling using text messaging, online messengers, and calls in reaching out to students.

Some learner support services are educational in nature. These are usually done via seminars, fora, or group learning sessions. Due to restrictions for gatherings, these information services may be transformed into virtual learning events. At present, meetings and learning activities utilize available technologies such as Zoom, Google Meet, Microsoft Teams, and others, for real-time discussions.

On the other hand, there are situations when the only support required by the student is accurate information. Given the right information, many students are able to navigate situations and circumstances. Hence, making information available to students is necessary at this time.

Producing information materials that learners can refer to any time as needed must be maximized. Quick reference notes, FAQs, and guides should be in place, and must be accessible to learners. These forms of asynchronous learner support will complement synchronous modalities.

d. Logistic support and capacity-building for stakeholders

On the side of the learner support team, there is a need to explore how communication and logistic assistance can be augmented. For instance, if learning activities will be done asynchronously, which may entail production of quality learning objects, then a team trained and capable for such should be in place.

Constant capacity building should also be given to those who are not abreast to flexible and remote delivery of services so that they can adapt to the changing

demands. Most importantly, technological infrastructures must be established to allow such preparation and production activities.

e. Quality assurance and code of ethical practice in flexible delivery of learner support services

As learner support services respond to flexible learning environments, there is a need to revisit quality assurance strategies. Learner support is guided by various ethical principles. As these services are delivered remotely and with aid of technology, basic code of ethics in the helping process must be met.

- ***Fidelity.*** How can the confidentiality of data be ensured especially as the services are delivered mainly via technology-mediated processes?
- ***Non-maleficence (“do no harm”).*** How can the risks emerging from the flexible delivery of services be identified and mitigated?
- ***Distributive justice and equity.*** How can the systems ensure that those students who are in most need of learner support are reached and will not be disadvantaged due to certain factors such as lack of access?

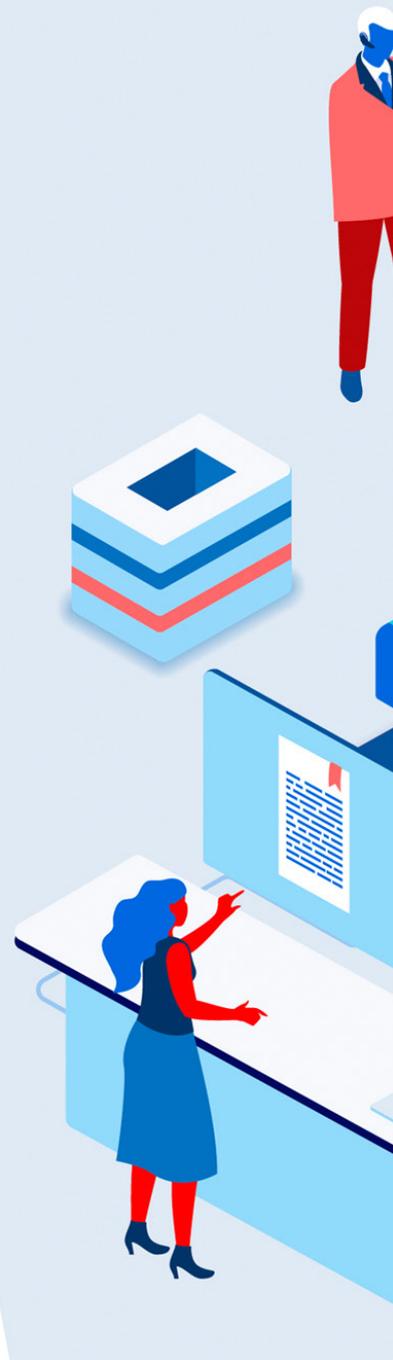


Chapter IV

*Flexible learning
and the UPLB 4.0*

A. What is Education 4.0?

Education 4.0 refers to the transformation in teaching and learning among higher education institutions brought by the technological advancements of the fourth industrial revolution (4IR). Prior to the 4IR, three major industrial revolutions, through the technologies that enabled them, have changed societies over the last centuries. The first was the 18th century mechanical production, made possible by steam and water power. Machines enabled by electricity facilitated mass industrial production in the late 19th century, marking the second industrial revolution. In the 1960's, the third revolution happened because of the invention of personal computers and the internet (Frey & Osborne, 2013).



Flexible learning is not just a temporary response to the coronavirus pandemic. It is also our way of adapting to the changing nature of work brought by the so-called Fourth Industrial Revolution (4IR). It is the phase of society where technologies fuse together leading to the automation, not just of production, but of knowledge.

4IR is an age of automation of knowledge and production characterized by the fusion of several enabling technologies (Gleason, 2018) collectively known as cyber-physical



systems. These include mobile internet, artificial intelligence, driverless cars, 3D printing, genetic engineering, and nanotechnology.

Like the previous industrial revolutions, the 4IR is radically changing the speed, breadth, and depth of our way of life and has resulted to revolutionary changes in both micro and macro social spheres.

- **New behaviors.**

Facilitating new ways of communication and greater access to information through social media and the World Wide Web

- **Technologies.**

Automating work and knowledge through advanced technologies

- **The millennial workforce.**

Working based on new attitudes and perceptions of the world

- **Mobility.** Converting the physical space into virtual where one can choose the time and device to work

- **Globalization.** Transcending boundaries to reach the whole world



Figure 3. Trends in the Fourth Industrial Revolution

These trends are expected to impact the future in the following ways :

- Introducing new kinds of work, especially in technology, software development, and social media
- Marginalization of traditional occupations (i.e., manual labor)
- Setting multiple competency requirements to meet multiple employment tasks
- Changing job tenure objectives from long-term careers to short-term engagements
- Increase remote or home-based work arrangements
- Utilization of ICTs to increase collaboration and productivity among differently skilled workforce
- Employment of artificial intelligence technologies for standardized, repetitive work
- Development of advanced robotics to change interface between humans and machines

Within such context, the World Economic Forum (2016) also projects a new set skills requirement.



Figure 4. Top 10 Skills Needed by Industries

Learning these new skills and developing competence to use and adapt to constantly emerging new technologies therefore becomes the primary challenge of higher education institutions in the 4IR. This requires changing the way we “view and do” education.

B. Effects of Education 4.0 to Higher Education

Along with changes in professional skill requirements, learning ecosystems in the future will likewise dramatically change:

- Learning will no longer be defined by time and place.
- Learners and their families will create individualized learning playlists reflecting their particular interests, goals, and values.
- Learning playlists might include a wide variety of digitally mediated or place-based learning experiences.
- Radical personalization will become the norm of learning, with approaches and supports tailored to each learner.
- Educators’ jobs will diversify as many new learning agent roles emerge to support learning.
- A wide variety of digital networks, platforms, and context resources will help learners and learning agents connect and learn.

- Some of those tools will use rich data to provide insight into learning and suggest strategies for success.
- At the same time, geographic and virtual communities will take ownership of learning in new ways, blending it with other kinds of activity.
- As more people take it upon themselves to find solutions, a new wave of social innovation will help address resource constraints and other challenges.
- Diverse forms of credentials, certificates, and reputation markers will reflect the many ways in which people learn and demonstrate mastery.
- Work will evolve rapidly that continuous career readiness will become the norm.
- “School” will take many forms. Sometimes it will be self-organized.

(Bridge, n.d., p. 5)

Today, society is already confronted by the challenges brought by these new changes, and these challenges are only expected to intensify further. Currently, many higher education institutions in developing countries like the Philippines struggle to cope with technological and social changes, and this problem may only exacerbate as technological developments are expected to become more complex and sophisticated. As a result, the observation that many students are not adequately prepared to meet the rising demands of modern society only seem to grow year after year.

Understandably, traditional higher education systems have focused heavily on capacitating students through knowledge retention and limited academic performance measures (i.e., written exams, oral presentations, etc.). With the dawn of the 4IR, learning must go beyond information transfer and uni-dimensional assessments. In the new order, “creativity is the key.” This means that educational institutions must shift focus on developing the following competencies :

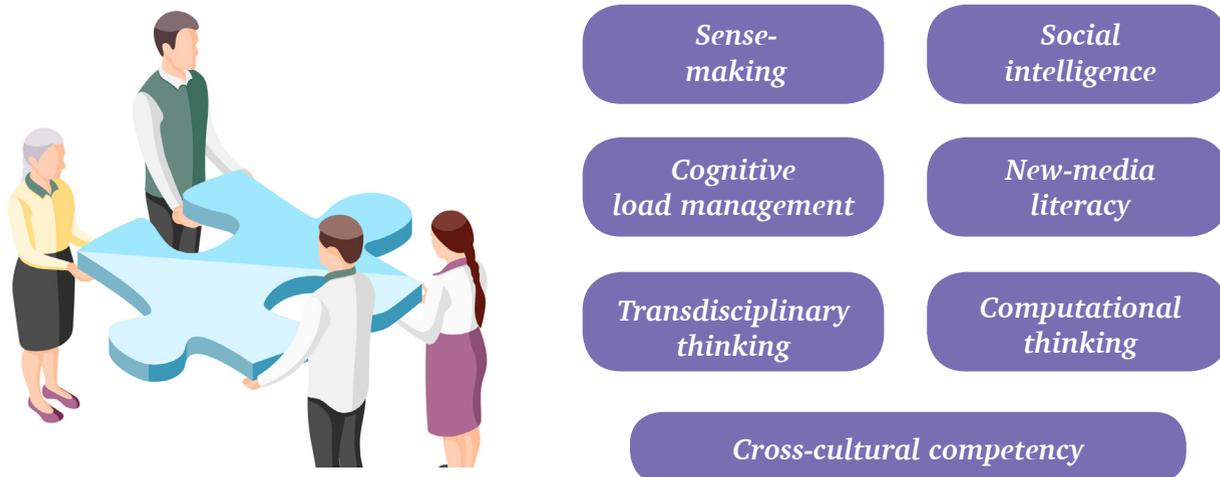


Figure 5. New Skills Learners Must Develop for the 4th IR

C. UPLB Flexible Learning: Today and Beyond

How may UPLB prepare for this future? As part of the national university, UPLB is expected to be a leader in higher education in the country. And the immediate imperative is to redefine its education goals in line with the new necessities of the 4IR.



Figure 6. UPLB Education 4.0 Goals

To achieve these goals, it is necessary for UPLB to transition to flexible learning environment. And while the COVID-19 pandemic has made this need more urgent and immediate, the groundwork for the University's transition has already been set albeit more challenging. The transition will involve a three-stage approach.

UPLB Strategic Direction Towards Flexible Learning

Remote Flexible Learning

- Training of Faculty and Staff
- Orientation for Students
- Curriculum Analysis
- Course Analysis
- Development of Instructional Materials
- Adopting Learning Management System
- Creating Support Systems
- Designing Learning Environment
- Strengthening Linkages
- Adopting Education 4.0 Practices

Adaptive Flexible Learning

- Continuous Training of Faculty and Staff
- Adopting Technology to Support Teaching & Learning
- Revitalizing Curriculum
- Creating Support Systems for Personalized Learning
- Supporting Adaptive Learning Environment
- Designing Learning Commons/Spaces
- Institutionalizing Education 4.0 Practices

Full Flexible Learning

- Implementing Flexible Curriculum
- Implementing Instruction through Various Flexible Learning Modes
- Strengthening Inclusive Flexible Learning Environment
- Strengthening Academic and Administrative Support System
- Sustaining Innovation
- Modeling Education 4.0 Practices

Phase 1

The COVID-19 crisis compelled many educational institutions to drastically shift from the traditional face-to-face classroom learning to a remote flexible learning. For UPLB, this shift to remote learning is only an immediate practicable response to the clear and present danger posed by the pandemic. As many policies, practices, systems, and structures need to be reinvented, remote learning appears as the only appropriate and workable solution considering the immediate need to respond to emergent conditions and threats. And this transition to remote learning is the first phase of successful transition into a full-blown flexible learning system.

Shifting to remote flexible learning is expected to fast-track necessary changes towards a flexible learning system. Current challenges in curricular changes, staff development, infrastructure improvements, and policy reformulations under remote learning will eventually serve as opportunities and foundation to implement flexible learning and to become an Education 4.0 institution.

Phase 2

To say that remote learning is just a make-shift solution suggests its temporary nature. Does this likewise suggest the possibility of going back to the old 'normal', to the way things were? It is a very unlikely scenario, and it would be counter-intuitive to aspire for this after realizing the frailty of our systems against natural threats. Thus, the only logical course forward is to build from our remote learning accomplishments and adjust to an adaptive flexible learning where Education 4.0 practices will begin to be placed. During this phase, we will start to adopt hybrid procedures, institutionalize mixed practices, and re-align fiscal, infrastructure, and technological targets to prepare for both remote and face-to-face education while exploring other alternatives.

Phase 3

To fully realize a flexible learning system in Phase 3, UPLB will have to adapt its procedures and priorities towards providing sustained and sustainable support for an even more diversified range of learning modes, expanded student services, flexible arrangements, and broader staff development requirements. This would require massive reorganizations of our administrative and academic functional structures and reviews and revisions of our policies.

UPLB needs to respond not just to COVID-19 but to challenges of a looming future. This necessitates the gradual adaptation with changing times and even more gradual dismissal of our old ways. Remote learning is a response to the current crisis. UPLB must eventually evolve into an institution of flexible learning to be continually relevant even after the COVID-19 crisis. If we must lead as a national university, we must do so not only past this crisis but beyond the visible horizon of the future.

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