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Curating contents for ESP virtual classrooms - Striking balance between learner's autonomy and didacticism

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Abstract

Learning is the process of acquiring information induced by a single event or amassed from recurrent experiences. Learning has become an economic necessity to survive. Swift changes and increased complexity of today's world poses have different demands to be met from education. The challenges in conventional classrooms have caused to search for alternatives. An increase in the acceptance of online learning has made the primary goal of education to be the transmission of knowledge to the students but has tweaked the process to facilitate students' autonomous learning. The transition of teaching to learning styles should comprise differentiated teaching strategies, evaluation measures. Recent approaches stress upon open-ended self-directed learning and advocates to be flexible and learner-centric, the students are active participants in the learning process. Teachers are demanded to learn, plan, prepare, share materials, and collaborate with their students virtually. In virtual classrooms, as there is enhanced connectivity between the facilitator - learner, teachers should ensure different parameters are in place to help a learner in accomplishing learning outcomes. Adversities such as the lack of quality, the persistence of monologue delivery patterns, the intense requirement of self-discipline, self- direction This paper sheds light on 8 components which could build up an effective virtual classroom experience to overcome adversities and validate against evaluation and metacognition of the learners through LOTUS model, a self-evolved teaching-learning tool

Keywords*: Virtual classrooms, Virtual learning challenges*

I. Introduction

Aspirations of the people have evolved to a greater level that reflects much in economic choices and sets the social order into the force. Even the governments are pressed to heed in to accommodate these aspirations by setting magnificent targets and direct their activities towards realizing the target "Governments all over the world are striving towards high-skilled and high-value economies" (Đonlagić S., Kurtić A. 2016).

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Factors of production are widened and there are numerous new contributors to economic growth and sustained development all over the world.

In an Economy, growth which has been thrust on knowledge-based activities, there is a rapid, and increasing pace of technological innovation whose prime function is the distribution and exchange of goods across national and continental borders (Lynch D E 2003). 'Knowledge worker' in the Knowledge-based economy will have to cope up with uncertainty; and actively participate in collective efforts and groups.

To make the Knowledge economy sustain, there has been a call for an education system based on the premise that with the change in the features of the society, there should be in the education of the masses as well. An increase in the acceptance of online learning has made the primary goal of education to be the transmission of knowledge to the students but has tweaked the process to facilitate students' autonomous learning. This paper sheds light on 8 components which could build up an effective virtual classroom experience to overcome adversities and validate against evaluation and metacognition of the learners through LOTUS model, a self-evolved teaching-learning tool

Age of Knowledge and Economy

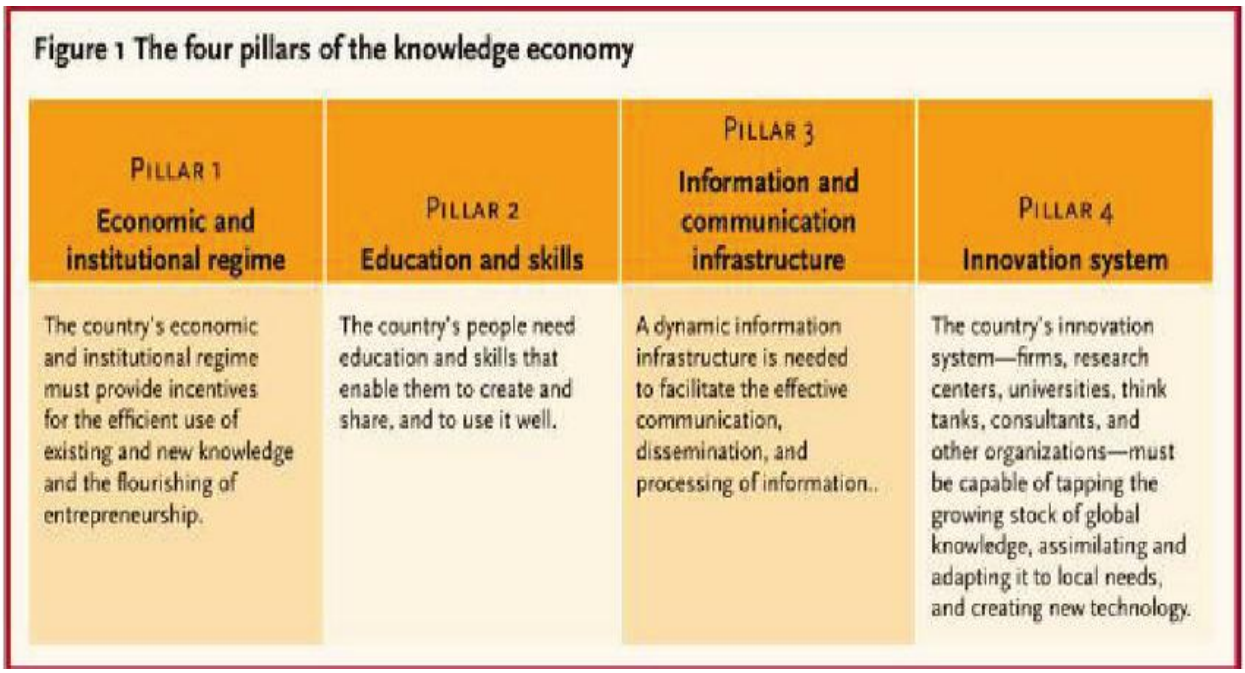
Knowledge has become an important factor for achieving economic development and learning has become the process of acquiring information induced by a single event or amassed from recurrent experiences.

'Knowledge economy' as a term was introduced by the Organisation for Economic Cooperation and Development (OECD 1996) and used to define the economies based on the production, distribution through the use of knowledge and information. The key commodity in the Knowledge Economy is 'knowledge' and its use to create new products and services (Donkin 1998)

Characteristics of this type of economy are 'man-made brainpower industries' where there is the subsequent merging of new information and communication technologies, creating a global inter-connected economy (Thurow, 2000). With the advent of globalization, the Knowledge Economy has resulted in 'a larger world market. These effects are visible through the structure of a 'new kind of labor market' (Bentley 1998). Knowledge economy, broadly driven by technology has the potential to 'reverse trends' in access to educational resources for enlarging the skill base (Lynch D E 2003). It has increased the linkage between education and the economy

The World Bank drives various attempts on transiting a nation into a knowledge economy, through education, resource sharing. It also involves calculating a country's Knowledge Economy Index (KEI) and Knowledge Index (KI). World Bank chalks out four pillars, summarized below in Figure 1 (World Bank, 2010) that must be considered in assessing their process of transition to a knowledge economy.

Figure 1: World Bank Knowledge Economy Assessment (KEA) framework.



The pillars in the above framework are interconnected and intertwined to each other as educational institutions and technology incubators at universities lead to the development of new technologies (Weber 2011)

Society 5.0 & redefining the learning process

The generic definition of the recently released Society 5.0 defines itself as "a human-centered society that balances economic advancement with the resolution of social problems by a system that highly integrates cyberspace and physical space" (CSTI 2018). The evolutions in Information and Communications technologies have made the facets of human activities to undergo a massive and rapid change. Society 1.0, groups of people hunting and gathering in harmonious coexistence with nature transits to the Society 2.0, agronomy groups, increasing organization and nation-building; Society 3.0, that promoted industrialization and mass production; and Society 4.0, information society has paved way for Society 5.0 is a human-centered information society, in which people can enjoy a 'high quality of life'. Society 5.0 by its nature will be revolving on every person and certainly not controlled and monitored by automated tools and technologies.

In “Society 5.0”, disruptive innovation is vital in all of its activities. The essence of Society 5.0 is that it will have to quickly elicit the most suitable solution that meets the needs of the individual. Thus, the economy and society go through significant changes, assimilation of knowledge is important to make impacts in multiple areas and lives. educational practices basically should support open and frugal inventions and innovations.

The emergence of virtual learning

In a world, interconnected with information communication technologies, Virtual learning, an evolution of the acclaimed Blended learning, delivers face-to-face in online instruction and medium (Graham 2013), is gaining wider acceptance, referring to it as the “new normal” in course delivery (Norberg et al. 2011). Education is dominated by information. Virtual learning increases access through integrating educational resources and experiences

Virtual classrooms of English for Specific purposes

A recent trend in teaching English as a foreign language is English for Specific Purposes (ESP), a linguistic training approach that prepares students for the world of work. It is taught to the learners preparing for their profession in different formats of the learning continuum. The outcome is to enable linguistic function most successfully in their professional environment. ESP courses are closely related to the overall economic advancement of society and effective ESP courses are effectively built after studying the profile of students, learning type preferences, motivation for study, acquired proficiency level.

ESP Courses are designed suiting the need’s assessment of the students, course materials are prepared using authentic material suiting the proficiency levels. The communicative simulation will be used as a methodology throughout dissemination. ESP training prepares learners to be independent learners as they will need to continue linguistically educating themselves to keep pace with the advancements occurring in their work and places them in a learning continuum. A future workplace was, the knowledge worker will have to work will be a computer-simulated environment where multiple users interact in real-time. Virtual Learning encompasses interactivity, communication, simulation.

Virtual classrooms and challenges

The problems such as equity, access, and extended screen time are posed as challenges in Virtual classrooms but the significance lies outside these such as student engagement, assessment, and learning support. Learner autonomy and learner engagement. In Blended learning, which is backed by the factor of ‘Flexibility’, Learner autonomy and learner engagement are closely intertwined and needs much attention

Learner autonomy in Virtual classrooms

The 'learner autonomy' is defined as learners' ability and willingness to take responsibility or control of their learning (Holec 1981). This calls for student's involvement in the development of their learning environment and managing their learning activities. Therefore, learners should be properly engaged to achieve 'learner autonomy'. Since learner's autonomy involves in facilitating the conversion of actionable knowledge, through learner's autonomy, the learner should be allowed to participate in defining the learning objectives – setting their own learning goals; learning materials and methods-selecting their learning materials to be used, thereby owning the learning process itself (Little 2004).

Learner's autonomy is widely distinguished into 'proactive' autonomy, 'which affirms individuality and sets up directions which they have partially created', and 'reactive' autonomy, 'which does not create its directions but, once a direction has been initiated, enables learners to organize their resources autonomously to reach their goal' (Little wood 1997). Proactive & Reactive autonomy in a learning process will not only lead to learning as per objectives set in a language learning context but will also manifest in forms as an individual, one who attempts to communicate and based on the function and performance, autonomy will set forth the learning course

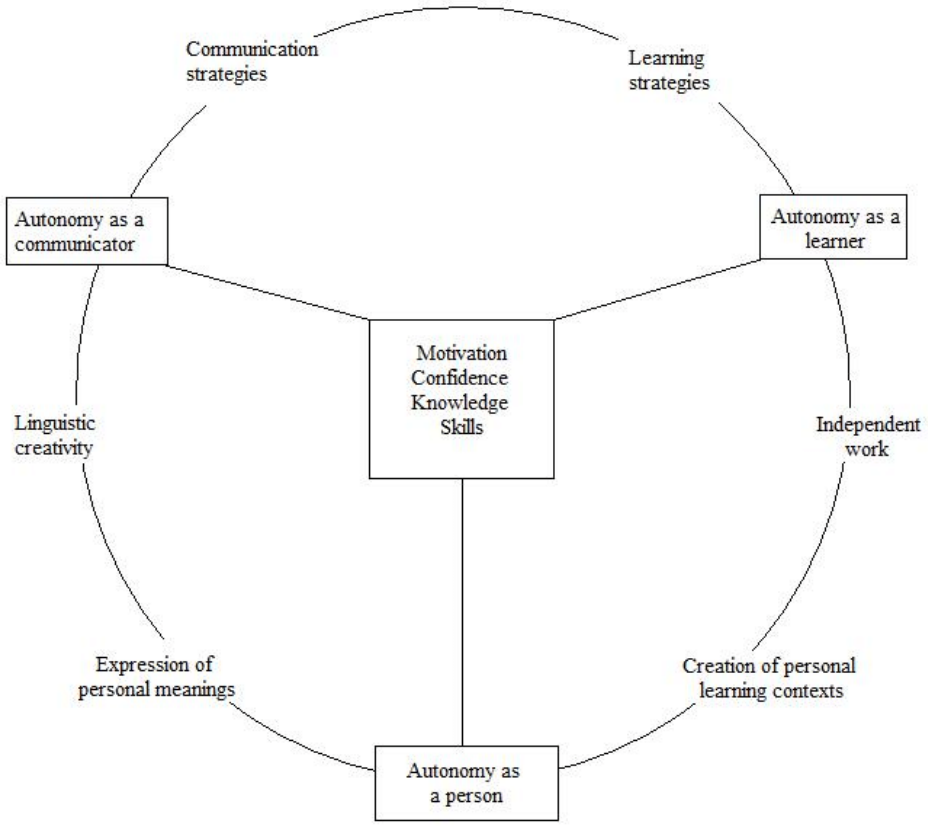


Figure 2: Developing autonomy through teaching (Littlewood, 1997)

With the exponential growth in educational technology tools, learners are provided with ample opportunities and a wide range of engaging platforms in their self-directed learning. The change in technological interfaces should also be supplemented by the change in learning material. Through provisioning for learner's autonomy, out-of-school resources could also be used extensively. Learner autonomy contributes to the development of lifelong learners who can adapt to the shifting demands of work in our society (Betts et al. 2016) by placing them in the self-sustaining learning continuum

Role of communities in ESP – Virtual classrooms

Based on the collaborative constructivism, backed by the John Dewey's progressive understanding of education The Community of Inquiry theoretical framework, it is a process model of online learning which views the online educational experience as arising from the interaction of three presences - social presence, cognitive presence, and teaching presence (Swan et al 2016)

The social presence - learners' ability to assert their social and emotional selves, view their classmates as real people and communicate openly online. The teaching presence encompasses the design, instruction, and facilitation of learning in the course. The cognitive presence is learners' ability to construct meaning through a process of inquiry, dialogue, and reflection (Garrison et al 2000).

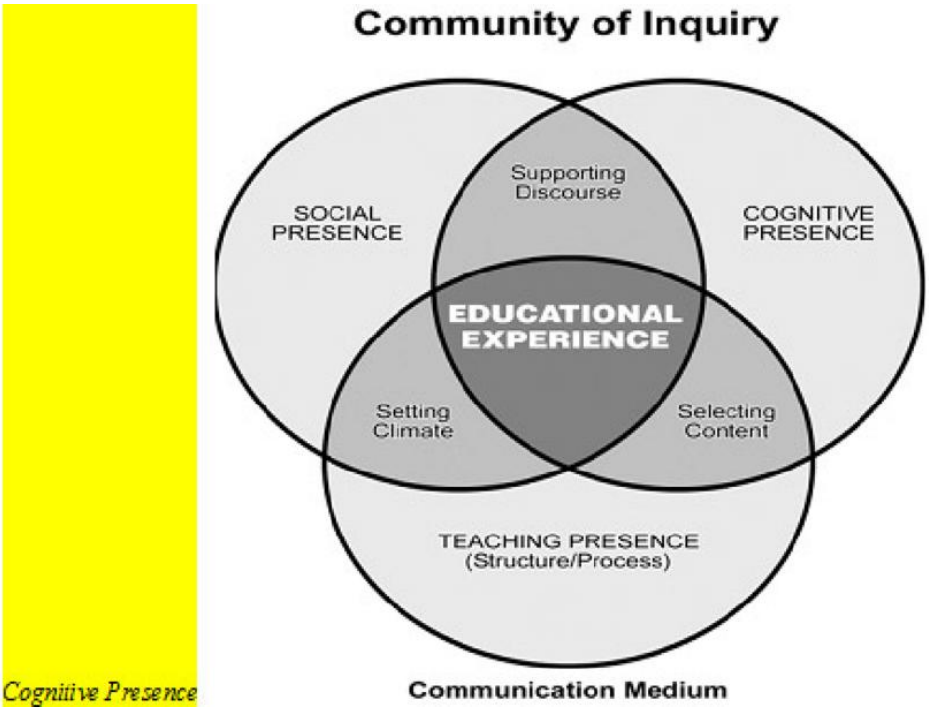


Figure 3: Community of Inquiry Framework (Garrison et al 2000)

Higher levels of perceived social presence in an online course yield higher levels of interaction, engagement, and satisfaction with that course (Tu et al 2002), and a cohesive online community with a strong social presence will be an indispensable starting point for an effective virtual classroom learning experience.

The Community of Inquiry framework identifies course design, direct instruction, and facilitation of learning as vital components in an online course (Swan et al., 2009)

Curating contents for ESP - Virtual classrooms

Teaching online is similar to that of offline teaching in terms of the building blocks. The tools used to engage students online are indeed different. It is also true that engaging students in learning activities online will require that teachers onboard students to those tools and support them in learning (Tucker 2020).

Building Block	Objective
Instruction & Modeling	Transfer information Explain concepts Show students *how* to: • Navigate tasks • Apply strategies • Use a technology tool
Discussion	Engage higher-order thinking via conversation about: • Texts • Videos • Podcasts • Topics/Issues • Current events
Research and Exploration	Conduct informal online research and crowdsource information with the group in a shared online space where students can learn from one another
Collaborative Tasks	Foster collaboration and creativity by asking students to work on shared tasks
Practice and Review	Connect students with practice and review activities online to reinforce their understanding of concepts and help them to refine their skills
Assessment	Assess student learning and mastery of concepts and skills to guide instruction, scaffolds, and reteaching
Reflection and Metacognitive Skill Building	Encourage students to reflect on their learning • What did they learn? How did they learn it? What questions do they have?

Figure 4: Building blocks of online lessons (Tucker 2020)

As a language, it offers the fundamental flexibility for the learners to test the learning and acquired skills through real-time application, verification, and rectification of the learning. Integration of real-world issues and topics into the daily learning paths in English classrooms ensures the 'learner flexibility' to ideate, brainstorm, discuss, debate understand and communicate viewpoints to fellow beings

LOTUS Model for virtual ESP classrooms

LOTUS is an acronym stands for Listen – Observe – Think – Understand – Speak. LOTUS Model has been developed as a teaching-learning model by this author herself through various interventions and projections with teaching-learning models.

LOTUS Model calls for common but differential learning outcomes at levels supported by incremental learning materials. LOTUS Model has integrated four skills of a language and aimed to enhance the communicative competence of an individual through Communicative Language teaching. It provides space for fundamental 'learner flexibility' along with real-world skilling exercises and tools such as critical thinking, creative thinking, communicative skills, and interpersonal skills. This model provides a training framework with 4 communication modules and 5 domains of personality development through which knowledge requirements for Society 5.0 could be channelized through EL Classrooms. Other variants for Society 5.0 get integrated into the form of teaching-learning materials suggested. The framework evolved is in a wheel structure, which encompasses all the four communication skills and five personality domains.

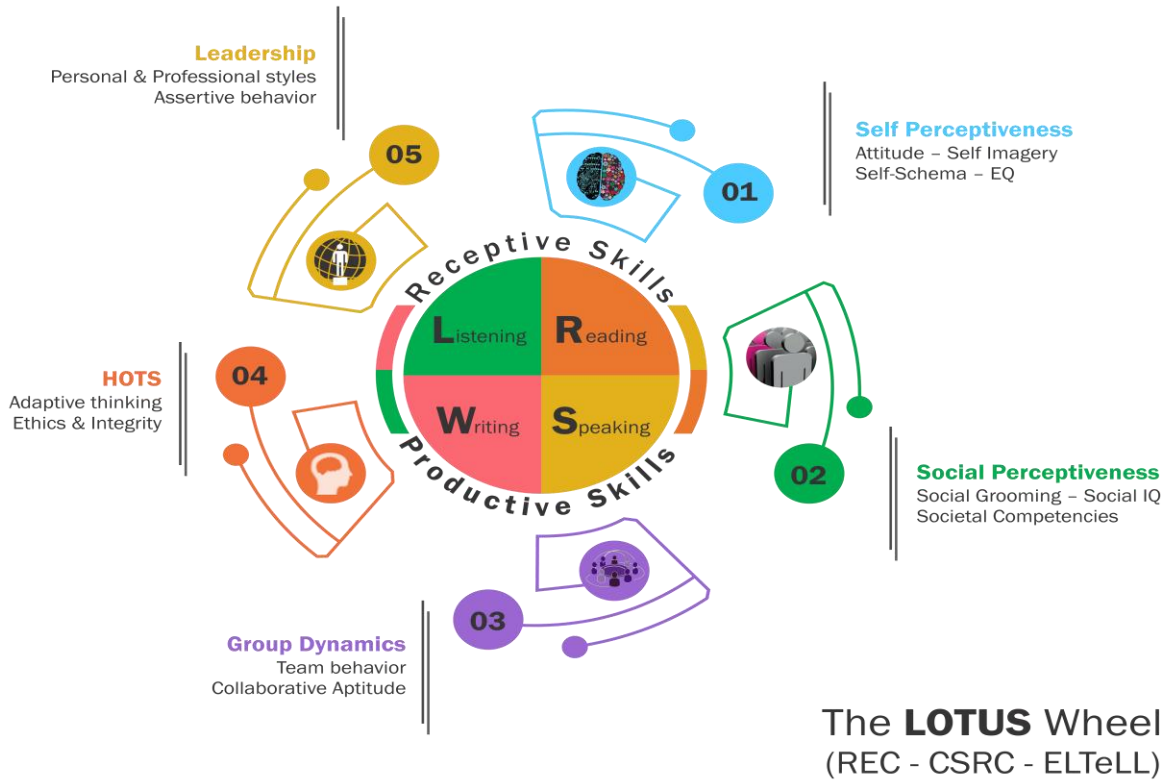


Figure 5: LOTUS Wheel

The training framework developed was to ensure the vital elements of skill acquisition such as Listening, observing, thinking, understanding, speaking, or exhibiting the acquisition. The model integrates the LSRW Skills into receptive and productive skills and transit progressively from '*receiving to revealing'*. The

personality domains are sequentially arranged from self-perceptiveness to Leadership such that the training programs align itself with a natural progression from *'self to society'*

Domains such as Group dynamics, Social perceptiveness focus on one's personality behavior with society whereas the domain of HOTS (Higher Order Thinking Skills), Leadership helps the learner to focus on self

Inferences for ESP Virtual classrooms in LOTUS Model

This model was developed for the engineering classrooms where English is taught and learned as skill and competence. These classrooms follow the Communicative Language Teaching mode and thereby necessitates the endurance of learning objectives, targets, and outcomes. In general LOTUS Model calls for common but differential learning outcomes embedded in different levels of Listening-Observing-Thinking-Understanding and Speaking.

Common but differential learning outcomes, personalized learning paths, stratified learning materials are the core components of the LOTUS Model, which ensures the learner flexibility, learner autonomy. These postulates by virtue and practice enable the learners to learn a concept practically in a more effective manner. Arrangement of materials, ensuring the proper transition of learning stages promotes Higher Order Thinking skills and places the learner in a learning continuum.

LOTUS Model contradicts with the one-size-fits-all system and urges the users to form their professional learning networks (PLNs), to connect teachers beyond boundaries, but also provide on-demand professional learning in a variety of formats. Truly personalized learning amplifies learner's voice, offers opportunities for codesign, considers social construction, and encourages self-discovery (Kallick et al 2016)

LOTUS Model insists and provides a path for setting up a 'Personalized learning network' for ESP Virtual classrooms, a progressive student-driven model of learning to provide opportunities to investigate problems, design solutions and ascertain the learning through performances

Voice of the learner, Space for the learner to Co-create, Social construction, and Self-discovery, which are cited as the four attributes of personalized learning (Zmuda et al 2015) has been integrated with the LOTUS Model and this is poised to provide a stimulating learning experience and place learners in a learning continuum, an ultimatum for survival in a knowledge economy

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