A Review of Learning Oriented Assessment (LOA) and how can it be used to inform ICL instruction? A James .E. Purpura Model

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Abstract:
The LOA framework describes the various aspects that affect how examinees respond to activities in both small-and large-scale assessments. The same factors act in educational activities and even in interpersonal interactions in real life. According to the framework, teaching, learning, and evaluation are all inherently connected in these settings and are frequently mediated by social interaction. LOA considers seven interconnected dimensions. We can comprehend the entire more fully if we comprehend what the dimensions relate to and then how they interact with one another. A richer comprehension of the entire may result from knowing how the various dimensions interact with one another across agents or settings.

Keywords: Assessments; LOA; Course; ESP; ICL

1. INTRODUCTION

Teaching English has never been as precise, specific, and varied as it is nowadays. Globalization, technological revolution, and lately the Covid19 pandemic, have greatly and deeply shaped the teaching/learning landscape. Teaching English has no longer the same standards as it used to have. The traditional and classical approaches became obsolete in a time when the latter is deliberately programmed. The need to remedy these weaknesses urged the field specialist to find solutions to the issues of filling the gap between university graduation and students' effective competencies in a target language use domain. Mainly CLIL, Adjunct, Hybrid, and others. These approaches, practices, and principles were meant to be critically studied and implemented in Algerian higher education contexts. But what is focused on in this article is the LOA framework and its implementation in higher education in Algeria.

2. Integrated Content and Language (ICL) in Algeria

The primary factors that influenced the design of ESP courses are first, the multilingual and linguistic diversity of Algeria. Second, the socio-cultural situation of students who were suffering from the lack of fundamental academic resources, support, and aid to succeed in their university studies.

The Algerian context is interesting since we were using traditional university teaching. The students after school-based literacy teaching were not efficiently prepared for university transition. Though they graduated from universities, they could hardly respond to the work market needs in terms of specific technical domains. It was one of the main reasons that pushed us to opt for CBI education implementing the hybrid and adjunct models. Students were in two different courses: a content area class and a language class. The adjunct model worked with collaboration between the tutors, the language practitioners, and the content specialists. The aim of using CBI was to afford students with authentic content and simultaneously build and develop their language skills. The student got effective assistance

since the instructions were given in a foreign language. What is shared with other contexts around the world is the emphasis on reading ability as means of success at university. It is exactly what the Adjunct model provides, and its contribution to their success is significant. Designing a course can contribute to the awareness of teachers in filling specific criteria for the sake of performance and professionalism

3. What is meant by the LOA?

The framework can be used to:

- Consider aspects that should be taken into account while constructing a curriculum unit
- Creating instructional or assessment activities
- Establishing realistic interactions
- Identifying characteristics that not only suggest but also moderate learning outcomes or performance

In this article, we will talk about how crucial it is to connect Integrated Content and Language (ICL) education and learning to the valuable skills that students will need to have in order to succeed in professional settings outside of the classroom. Then we will see how ICL instructors need to become familiar with the themes, settings, circumstances, and scenarios found in the subject area so they may recognize the skills to teach and the assignments that will aid in the development of these competencies. Then we discuss how challenging teaching these abilities is. Of course, it entailed learning about language and academic material, but it also incorporated socio-cognitive elements, emotional components, and other aspects of learning events. The LOA framework emphasized these attributes.

3.1 Learning Outcomes

The aim of this article is that enable the instructors and learners to:

- Familiarize with a variety of methods for teaching language and subject together
- Gain a thorough understanding of Learning-Oriented Assessment (LOA) and how the LOA dimensions can be used as benchmarks for teaching, learning, and assessment.
- Gain knowledge of research related to teaching, learning, and assessment of ICLHE activities.
- Apply the knowledge gained from this article to the creation of an ICLHE task or set of tasks.

3.2 Learning-Oriented Framework

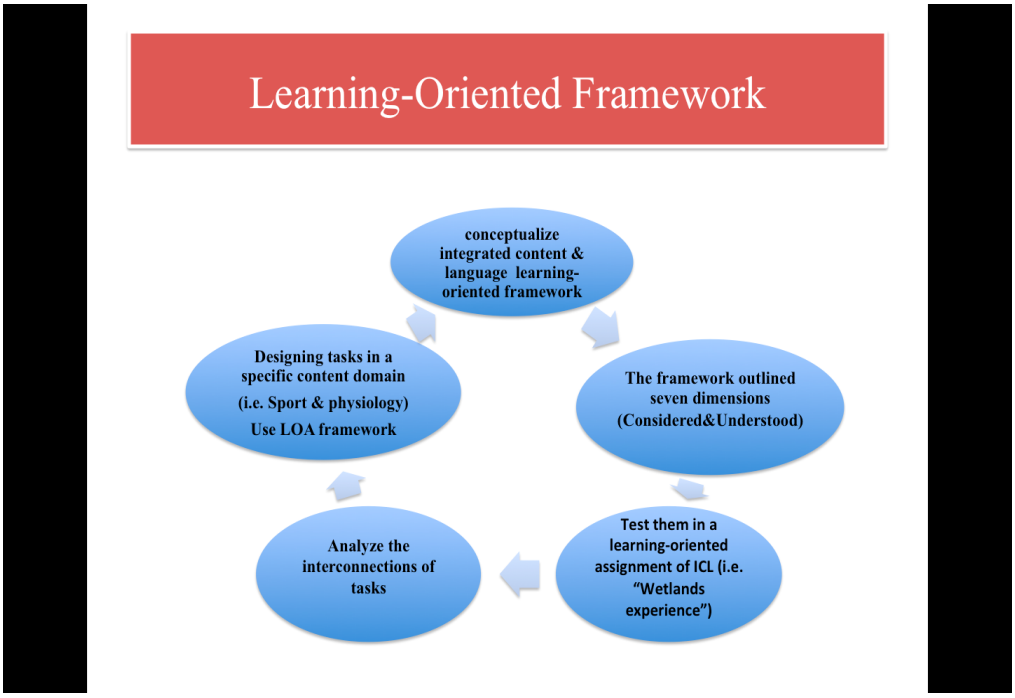
In this part, we have seen how to conceptualize integrated content and language education within a learning-oriented framework. The framework outlined seven dimensions to be considered when teaching ICL. To understand those dimensions, we need to be given the opportunity to test them in a learning-oriented assignment of ICL, i.e subject matter where the degree of difficulty is gradual. Then, we have to analyze the interconnections of tasks and the benefits of integrating content and language in the same activity. By the end of this article, we use the LOA framework to point out the main dimensions to be considered in designing tasks in a specific content domain (i.e. Sport and physiology, physics, or medicine).

In addition to the specific professional content domain, we also deal with the academic one. The purpose of such focus was to develop our awareness of the importance of instructional, socio-cognitive, and speaking performance, more specifically, the importance of identifying seven critical factors underlying language use, instruction, learning, and assessment and

foreign language proficiency goals. All these latters were implemented by listening, reading, speaking, writing, remembering, and processing to build, and share knowledge of a high, appropriate, and linguistically correct standard.

The goal was not only to gain theoretical knowledge about ICLHE but also to learn and reflect through experience so these understandings can be applied and adapted to the Algerian educational context. And the aim is to change from the classical and standard way of teaching language and content and try to implement a framework where seven dimensions need to be seen. Note that not all of them need to be used at the same time but the ones you feel are relevant to the situation. Knowing Purpura's seven LOA dimensions would give you a kind of yardstick or a standard to be used. For the sake of being professional and having a sharp sight toward the assessments that have been for a long time neglected or marginalized to the detriment of course design. This can be illustrated as follows:

Fig.1. Illustration of Using a Learning-Oriented Framework



Source: Adapted from James.E. Purpura Model, 2021

The components of language proficiency can be summed up in two distinct conceptualizations: knowledge of grammatical forms and the linguistic resources needed to establish interaction and communicate accurately, meaningfully, and appropriately. The Purpura (2017) Meaning-oriented model sheds light on proficiency in specified semantico-grammatical, propositional, and pragmatic resources of communication. We tried implementing them in a lecture on Sport and Physiology discipline (ESP).

The tasks were engineered to include the seven dimensions of the LOA framework. Some were better represented than others in terms of integration. It was supposed to be five sessions class. Fully implementing them, needs a complete range of tasks. Here are the illustrated dimensions :

3.1.1. Contextual Dimension

Learners are taught about pulmonary ventilation during physical efforts, once they are introduced to new vocabulary, a **planned assessment** would help them reinforce their knowledge. As far as grammar is concerned, they are introduced to present and past tense (see appendixes). They are important in writing scientific articles and reporting experiments. In this context and according to the teaching experience, it is assumed that grammar would be important and the choice for a such topic is significant

3.1.2. Elicitation Dimension

This dimension is concerned with selection tasks for instruction, learning, and assessment. The teacher can ask or instruct learners to underline important words or keywords for the comprehension activity and for grammar they would have to rewrite the verbs from the present tense to the past tense. The diagram is used to help them **remember** and **understand**. The teacher asked and instruct learners to underline important

words or keywords for the comprehension activity and for grammar they had to rewrite the verbs from the present to the past tense.

3.1.3. The L2 Proficiency Dimension

- Students are expected to be familiar with scientific words (Register dealing with respiratory system organs) Scientific words = technical lexis with the topic.

- Elaborated Lexicon (The process of ventilation/efforts/breathing.etc.) lexis is one thing. Structures need to be taught to describe medical processes

- Write scientific reports

- Describe Medical Processes

- Use the appropriate tense in specific tasks

- Knowing the topical resources you want students to learn in this lesson (Proficiency = competency, language resources, topical resources.

Students were expected to be familiar with technical lexis. This dimension identifies the linguistic and topical resources to focus on. The meaning-o model can guide this.

- Write scientific reports (one precise report)
- Describe Medical Processes
- Use the appropriate tense
- Meaning-O Model components: Topical and Language resources

<table>
<tr><th colspan="4">Meaning-Oriented Model components</th></tr>
<tr><th colspan="2">Topical resources</th><th colspan="2">Language Resources</th></tr>
<tr><td>Explicit Semantic Memory</td><td>Ideas, facts, concepts, rules, and problem-solving categories classified and hierarchies</td><td>Semantico-Grammatical Knowledge</td><td>Pragmatic Knowledge</td></tr>
<tr><td>Explicit Episodic Memory</td><td>Situations Experienced in real-life situations</td><td rowspan="4">•Knowledge of forms & associated semantic meanings
•Propositional Knowledge (topical meanings)</td><td rowspan="4">•Functional Knowledge (intended or functional meanings)
• Implicational Knowledge (implied meanings)</td></tr>
<tr><td>Autobiographical Memory</td><td>Own’s or once’s experiences</td></tr>
<tr><td>Implicit Memory</td><td>Steps based on proceduralized performance</td></tr>
<tr><td>Visuo-spatial Memory</td><td>Mental image, object, locations</td></tr>
</table>

Adapted from Purpura(2004,2014a)

In this table, we tried to summarize purpura's model in a way it is free of literature so that it can be understood and clarified. It shows the different components of language resources and topical resources and how it is recommended to make a clear distinction between them to dedicate the

appropriate time and resources to teaching ICL in higher education in Algeria.

> « It is not possible to communicate functional knowledge without accurate or relevant topical content related to these contextual features. Assessments based solely on functional proficiency provide only a partial estimate of a person' s proficiency and one that can result in miscommunication ». (Purpura 2016)

3.1.4. Socio-cognitive Dimension

We have to rely on students' feedback, they need to be involved in doing the tasks. The targeted objective is to make them not only **remember** the lexicon but also **understand** the process of breathing.

- Socio-cognitive Dimension
  - The architecture of the brain: memory
  - Functionality: processing, self-regulation, reasoning, etc.
  - What cognitive features are needed to do the culminating task?
  - What do students need to process?
  - Do they need to remember?

We had to rely on the students' feedback. The targeted objective was to make them not only remember the lexicon but also understand the process of breathing. Now that we know what to teach/test and what tasks to use, this diminishes focus on whether these tasks are cognitively appropriate. It also tracks whether students are learning something. As an observation of this reflection James Purpura added « *now that you know what to teach/test and what tasks to use, this diminishes focus on whether these tasks are cognitively appropriate. It also tracks whether students are learning something* »

- We incited on making them think rather than blindly deduce (Meta-cognitive Strategy)

- The socio-cognitive dimension is the architecture of the brain, memory and its functionality is processing, self-regulation, and reasoning

3.1.5. Instructional Dimension

This dimension focus on how to present students with information like in a text or with explicit instruction.

The teacher-student **interaction** should be positive: Teachers have to avoid negative evaluation, and severe and harsh error correction, which help students to build self-confidence.

Students are supposed to be familiar with grammar and language form, but what is ambiguous or unknown is that we are not sure if they are aware and conscious that the **semantic** meaning is crucial in reporting or describing a process. The when and How of using the appropriate tense in specific tasks (reporting/writing/ordering, etc…)

3.1.6. Social-interactional Dimension

Instruction occurs in a social context with different players, and it is mediated through interaction. The participants in the social context influence the interactional practices we engage in, And this could affect how we learn or if this happened on a test, how we perform. This can be done or organized in two-turn exchanges. For example, one learner describes the inspiration inhalation process, and the other one, the expiration exhalation.

3.1.7. Affective Dimension

It is almost impossible to build a suitable learning environment without focusing on the Affective affective dimension. The students are the cores at the center of the learning process; introverted extroverted, shy,

anxious, self-confident, motivated, and excited(Socio-pshycological disposition) the tasks are engineered to support/inhibit these feelings.

4. Education Challenges

Knowing the right aspect of language to be focused on, can be regarded as the main field of interest and investigation in pedagogy for the sake of efficient language teaching and learning. The way and the how-to teach have always been scrutinized and tackled from different perspectives. But the one we appreciate and adopt would be the one of Purpura, 2016 « the semantico-grammatical knowledge associated with semantic meaning ». It includes not only the knowledge of grammatical forms but also the knowledge of semantic meaning. (Purpura 2004) This is a model of L2 proficiency. This can inform the "what" of teaching, learning, and assessment, but doesn't say much about the "how."

Purpura's Model works like an algorithm, the more the variables and parameters are included, the more sophisticated and efficient it would be. Adding Situational, Sociolinguistic, Sociocultural, psychological, literary, Rhetorical, and Interactional meanings can only be of tremendous help in achieving language competence (set of competencies)

Among the articles, we met to reinforce our understanding were the onsite and online courses at the University. It represented two different approaches to Content-Based Instruction CBI. The question was how did the roles of language and content faculty differ in these two approaches?

Our tentative answer was that the educational institutions were forced by the government to close universities as a response to the COVID-19 lockdown, and they were obliged to continue the teaching and learning process at distance through the use of some ICTs (i.e. Zoom, Google Meet, and Moodle, etc). As a result, the use of online education became popular worldwide. Many high-ranked universities had launched online learning programs, producing impressive results for students. Meanwhile, the onsite

teaching and learning process had witnessed an important change to overcome the current circumstances. CBI Approaches had been set to promote linguistic proficiency and reach dual learning objectives, mainly content, and language. The challenge was greater when it came to choosing the right combination and emphasis.

CONCLUSION

We tried to meet LOA requirements in the sense that the text was tightly close to their learning program. Also, learning a second language (English) was of great help for students' studies as it will be used for their reading. It could be more relevant if we could integrate and implement the dimensions in an equilibrated manner. The fields and the disciplines were different in the sense that some streams need specific proficiencies. In scientific: streams we enable them to describe, analyze, justify, argue and report whereas for humanities we help them analyze, discuss, summarize, argue and interpret. Note that some proficiencies can be used by either stream.

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7. Appendices

READING COMPREHENSION TESTS (SAMPLE)

Task 5 (10Pts) Read the text and choose the most appropriate answer (you can have more than one correct answer)

1. **Greater PCr (Phosphocreatine) utilization occurs in:**

A. Type 1 warm-up **(Endophoric literal)**
B. Type 2 warm-up
C. In none
D. In both

2. **Relaxation depends on:**

A. Maximal rate of force development (peak power)
B. Temperature
C. Type of Activity
D. Other **(mainly temperature and some influence of the type of activity) (Endophoric implied)**

3. **Athletes benefiting from muscles fibers functionality and MFCV are:**

A. Footballers
B. Sprinters
C. High-intensity sportsmen
D. Other **(not only one but all of them) (Endophoric implied)**

SPEAKING TEST (SAMPLE)

Duration: 20 mn

Task 1 (8Pts) Duration: 10 mn (3mn reflection/7mn speaking)

Based on scientific data, what would be a perfect and complete sport for you? 8Pts

(No wrong choice; what matters is the way you argue and justify your answers)

(**Endophoric implied)(Contextual Dimension: Arguing)**

NB: They will be scored on the way they would support, justify, and argue their choice, It's not gender-biased, it's rather a gender-neutral task; all genders can choose the one they want. This task is meant for both genders; whatever their gender is they will not be inhibited. It seems to be broad but this task aims to see their abilities to:

Justify: Their answer should give reasons sufficient to support the rightness of a position or action.

Prove: Their answer should give reasons sufficient to warrant accepting the truth of that item.

Argue: Their answer should either prove or justify that item.

Task 2 (12 Pts) Duration: 10 mn (3mn reflection/7mn speaking)

You are about preparing athletes (Soccer players) for the Soccer world cup in Qatar. Algerian

players need to be prepared for such specific weather conditions(Hot and dry). As an expert, what would you recommend them to do for a better performance?12Pts (**Exophric implied**)