**Curriculum Development for
a Technology-Rich
English Language Learning Environment**

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Introduction

- Using technology to assist language learners is much in demand by students, but…
- teachers lack confidence in technology use and feel outside their "comfort zone" when…
- Their own teachers in years past often used little or no technology, so…
- Today's teachers often feel less sophisticated than their students in….
- Most literature reports one-time tests and limited guidance on curriculum design

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Technology-rich Learning environment

- The goal is NOT to simply use more technology
- The goal is to improve learning by using technology that enhances learning activities
- Technology is used as a means and part of the lesson plan
- The RIGHT technology for the BEST outcomes
- Today we explore how to do this by…

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Theoretical Framework:
Cognitive Psychology, Constructivism and Active Learning

- Cognitive psychology & constructivism

  - Understanding of psychology-people learn and think by connecting the dots
  - Teacher role is to help students fit new information in with what they already know (constructivism)
  - Lecture/memorization is inadequate

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Active learning

- Student-centered active learning
  - Learn by doing ("hands-on" use of the language), active engagement, not passive reception of information

Technology provides broad availability of authentic learning materials and social activities.

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What is "Technology Rich"?

- Environment using technology for several kinds of learning activities
- Each separate use is planned and selected to contribute to the learning experience
- Each achieves desired beneficial learning outcomes
  - Not using technology ONLY for the sake of using technology, or just "for show"

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Curriculum Development

- An effective curriculum must reflect the **philosophy, goals, measurable objectives, learning experiences, instructional resources,** and **assessment plans**
- Twins sins of traditional curriculum design
  – Activity-oriented planning (hands-on but not minds-on)
  – Planning for "covering" the content, not deep understanding
- Alternative
  – Focus on understanding & knowledge transfer
  – Design curriculum "backwards" from outcomes

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Technology-Rich Instructional Design Process

1. Identify outcome goals/objectives based on marketplace requirements
   ↓
2. Choose **instructional activities**
   ↓
3. Select technology by **affordances**
   ↓
4. Develop complete **lesson plans**
   ↓
5. **Teach the class**
   ↓
6. **Evaluate success** to plan next time

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1. Outcome Goals/Objectives

- **Any instructional program needs outcome goals. Clarifying course goals acts as the first step…..**
- **Overall curriculum goals based on marketplace requirements**
  – **Measurable objectives for each class needed to achieve those goals**
  – **Individual lesson objectives to meet those class and curriculum goals**
- **Know KPIs before you begin teaching**

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2. Instructional Activities

- **Do not think yet about the technology**
- **Plan logical mix of measurable instructional activities to achieve each of the class outcome objectives**
  – **Textbook reading**
  – **Lecture (20 minutes or less, please)**
  – **Discussion**
  – **Student presentations**
  – **Drill and practice**
  – Etc.
- **Plan HOW to measure success for each**

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Use student-centered active learning

- **Introduction of new knowledge may be more traditional, but…**
- **Activities must make students active in applying their new knowledge again and again until they have mastered it**
  – **Task-Based Language Teaching, Gamification, etc.**

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TBLT/TBID

- **Task-Based Language Teaching (TBLT) and Task Based Instructional Design (TBID)**
  – **Specific things that the students need to accomplish, or problems they need to solve,**
  – **By a certain deadline**
  – **Clear connections to outcome goals of the class**
  – **Clear to students why beneficial**
  – **Students need to be held accountable for completing the task**
  – **In most cases, being accountable means that it contributes to their grade**

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3. Technology Affordances

- Only after you know the **learning tasks** can you pick technology by which they can be performed
- Evaluate by "**affordances**"
  - "The qualities or properties of an object that define its possible uses or make clear how it can or should be used"
  - In this case, the functions and benefits the technology can provide toward learning

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Example

- Technology can help with learning tasks requiring repetition.
- Transfer repetition out of classroom to technology allows teacher to focus on higher-level instructional functions in classroom
- Technology can also help in tasks requiring social interaction (Line, FB)
  - Engages and motivates students more

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Kennedy & Levy (2009)

Technology must be…

"An **essential part of the course** it is designed for and

beneficial to all the students for a sustained period of time,…

not just an **extra option** that appeals until the novelty wears off

and is useful to only some of them"

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Criteria for tech choice

- Accomplishes learning outcome objectives? Measurable results?
- Familiarity or need for **induction training**?
- How will students use the technology?
  - Brief uses or longer periods of time?
- Will it fit their lifestyles?
- Novelty versus sustainability?

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Create a Lesson Matrix

Outcome Objectives ➜	Learning Activities ➜	Tasks and Technology
Demonstrate an awareness of and sensitivity to verbal and non-verbal behavior appropriate for students and instructors	Presentations with class feedback on verbal and non-verbal behaviors	In-class presentations using PPT, with rubric for classmate feedback on verbal and non-verbal behavior
Show critical thinking ability	Individual writing	Short essays on open-ended topics assigned by teacher and turned in electronically
Articulate clearly organized ideas and supporting evidence	Conversation and oral presentations	Group voice chat via LINE with feedback from classmates
Develop ability to recreate the written thoughts of others through vocal delivery	Presentations showing reading comprehension	Students choose BBC news article (topic of their choice) and summarize to small groups in class
Understanding key terminology	Teacher-guided definitions	Lecture with PPT with classroom discussion
Problem Solving	Case study and scenario discussion	discussion, guided by teacherOnline learning community
Develop a sense of the cultural aspects of the peoples who speak the target language	Guest speakers; in-class games	Native speaker classroom guests "Live" or via Skype with Q&A; Game-based assessment via Kahoot
Use vocabulary appropriate to the target audience	Dictionaries & resource books; Drill & repetition	Gamified smart phone app developed by university

Figure 2. Sample educational objectives, activities, tasks, and technology. Adapted from Marek & Wu (2016).

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Technology Rich

- You will likely use technology for several different outcome objectives
  - Likely different types of technology for different learning activities
  - "Technology-rich" in curriculum design means **using technology wherever it is beneficial…**
  - Not just in one limited category of learning activities

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4. Create Lesson Plans

- When the big picture is complete (goals, objectives, learning activities, technology)…
- Create the detailed lesson plan
  - How will the multiple learning activities be scheduled on a weekly or daily basis throughout the semester?
  - On what class meeting will give each specific assignment be made to students?
  - On what days will they be due?
  - What will happen in each individual classroom meeting? This is a standard thing that teachers always do, but the inclusion of more technology in the class may require more detail.

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5. Teach the Class

- Issues may appear the first time a new instructional approach is used
  - May need to teach a course two or three times before the lesson plan and operation of the class is perfected
- Teacher can often address problems as soon as they are discovered.
- In other cases, make notes about things to change next time the course is taught
- Ask the students directly what they think:
  - "What advice do you have for the next time I teach this class?"
  - Some answers may not match the instructional philosophy or goals, but students will likely have good ideas

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6. Evaluate Success to Plan Next Time

- Evaluation must be an on-going process
- Always watch for things needing to be "fine-tuned."
- When the semester is over, go back to the measurement plans made when establishing the goals and measurable objectives
- What lessons result from these measurements?

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Evaluation & Analysis

- Think about what Constructivism says about how students learn. Did the technology use:
  - Help students be active learners?
  - Help them "connect the dots" between new information and what they already knew?
  - Help them "learn by doing" so that learning was natural, not artificial?
  - Help students feel confident about their learning?
  - Were they more motivated to learn?
- The answers to each of these questions will help improve the class next time it is taught

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Best Practices

- Here is advice based on this theory-based approach to curriculum design
  - Explain the benefits of the ways we are using technology
  - Select tech that the students relate to well
  - Motivate students to use technology outside the classroom and to make learning as part of their life
  - Make it part of the curriculum and part of the grade
  - Don't abandon your students to technology – engage with them, monitor and correct
  - Give students encouraging feedback, so they experience success

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Final Thoughts

- Teachers need to get to the point in their personal professional development where…
- The infusion of meaningful technology into their classes is automatic and their normal way of teaching
- Learning via technology is not a "gimmick" or something that exists off to the side of the normal instructional interaction since little learning is gained by…..

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Final Thoughts

- **Technology-rich learning environments are a way of life for the students. Should be a way of life for faculty. But both need computer literacy**
- **It is a strategic planning, requiring both research and critical thinking, but…**
- **The evidence is clear that a technology-rich language learning environment contributes to improved student confidence, motivation and ability**

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Questions?

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References

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- **Ellis (2009)**
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- **Yavuz Konokman et al. (2017)**

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