Curriculum Design Framework in Digital Age – Revisit the Tyler Model

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# Curriculum Design Framework in Digital Age – Revisit the Tyler Model

August 21, 2016 | By Xiaopeng Ni
Educational Technology
Instructional Design

Most organizations are using a learning management system. The adoption of this technology, along with nonstop technological changes and updates, has significantly altered curriculum development. The purpose of this blog post is to propose a design framework to help curriculum designers and developers plan their curriculum in ways that embrace new technologies and cope with the design complexity.

Several curriculum design models have been proposed in the last century. Among these models, Ralph Tyler's model represents as the most classic one for curriculum design and plan of instruction. As described in his well-known book, *Basic Principles of Curriculum and Instruction*, Tyler (1949) summarized four principles of curriculum design:

1. What curriculum objectives need to be attained?
2. What learning experiences should be selected to achieve those objectives?
3. How can these experiences be effectively organized or sequenced?
4. How can we determine if the objectives are being reached?

The Tyler model has provided administrators, instructors, and designers a scientific tool to examine the problems of curriculum and instruction for more than half century. In our conventional practice, educators typically view the selection and organization of educational experience as a united component (e.g. experience or content). The traditional view of curriculum design is usually presented as the following curriculum triangle:
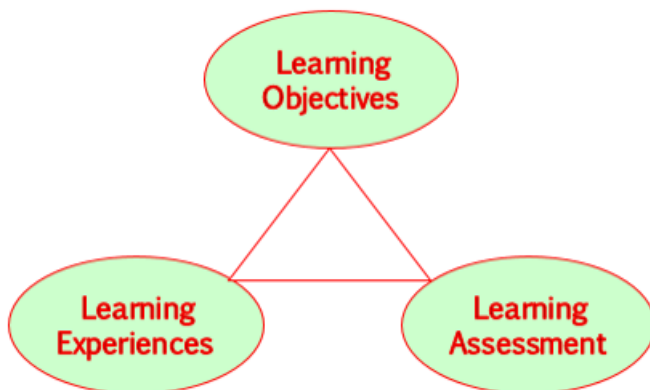
While the essential focus of curriculum design and instruction remains on the three key components and their alignment: objectives, experiences, and assessment, educational contexts and specifications across the globe have changed rapidly. The following factors are worth our consideration when we plan curriculum and instruction:

1.
   1. Wide adoption of learning management system
   2. The integration of technology into the curriculum
   3. Social division of curriculum development
   4. The pursuit of accessibility and usability
   5. Attention to student attrition and retention
   6. Emphasis on student readiness and preparation.

In order to be responsive to changing educational contexts, values, and expectations in the field, the following framework is proposed:
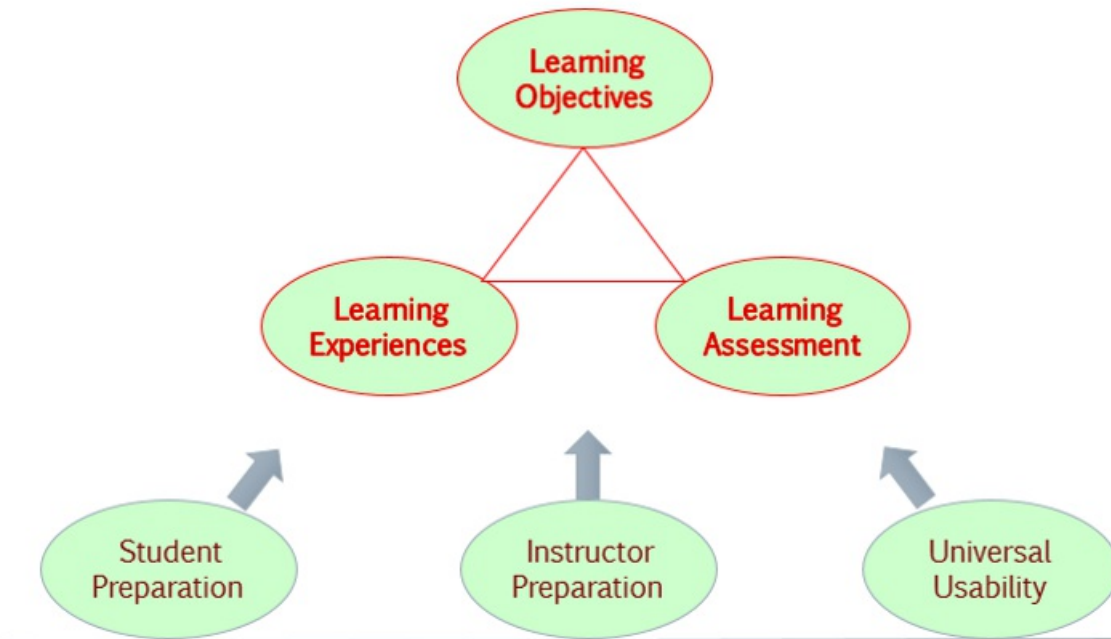
This new framework includes six steps of curriculum design:

- Step 1: Determine the learning objectives as required by curriculum standards, program specifications, and/or societal needs.
- Step 2: Determine learning experiences (materials, activities, tools, etc.) that help students to achieve the learning objectives desired, and organize those experiences into a logical, holistic, and development-appropriate format.
- Step 3: Determine the evidences which can be used for the evaluation of the objectives and create evaluation instruments accordingly.
- Step 4: Determine guidance and support that might facilitate student learning and promote learning independence, including a welcome letter, course orientation, tutoring process, study strategies, etc.
- Step 5: Determine guidance and support that might prepare and facilitate instructor teaching, including preparation guide, lecture notes, enrichment materials, etc.
- Step 6: Apply and integrate usability practice to promote the ease of use, satisfaction, and learnability of designed learning process and objects.

The new design framework is intended to respond to the current and emerging educational situations and expectations. By using this design framework, we hope that the curriculum planning and design process is enhanced in the digital learning environment. We also hope the framework can inspire foundational areas and standards for quality assurance in higher education and other organizations.

References:

Tyler, R. W. (1949). *Basic principles of curriculum and instruction*. Chicago: University of Chicago Press.

About the Author

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Dr. David Ni is currently an instructional design faculty member at Franklin University.