**Understanding by Design**
Title: Understanding by Design
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**Recommendations:**
- Planners need to allocate the appropriate length of time staff members will need to successfully adopt the principles of UbD.
- Teachers must believe in and need to have a working knowledge of the key principles underlying UbD.
- Students are required to become active in their own learning, including self-evaluation.

Many school improvement initiatives fail because the new program is presented as a parachute drop with too much information given in a short time period, and with unrealistic expectations of staff members to transition without adequate time develop a working understanding of what is expected of them. Therefore, I recommend that school districts, adapt to the real needs of faculty members, and the professional development commensurate with the District’s expectation of staff members implementing a new program or initiative. The Nicolet High School District is in the third year of a four year roll-out plan to implement the practices of Understanding by Design (UbD), to improve the achievement for all Nicolet High School students.

**What You Need to Know**

Teaches need to understand the following key principles of UbD:

- Teaching and learning for understanding is qualitatively different than teaching and learning that emphasizes knowledge-recall learning only.
- Understanding can be manifested in a variety of ways.
Closing the Gap
TURNING DATA INTO ACTION

- The best instructional designs employ a backward design process, with Stage 1 emphasizing desired results; Stage 2, the design of assessment evidence; Stage 3, learning activities.
- Standards need to be “unpacked” via a consensus-building process that determines which standards are just worth being familiar with, which standards describe what all learners should know or be able to do, and which standards articulate enduring understandings.
- Desired results should cue students into the “big ideas” of what they are studying. Assessment, teaching and learning are inextricably linked.
- Effective assessment should be balanced, creating a photo album rather than a photograph of student achievement results.
- Effective assessment should be anchored around authentic culminating performance tasks and projects

For schools that are implementing the practice of “Understanding by Design (UbD)” it is essential that the student become active participants in their education and that the following instructional design principles are up-held:

- Students should know where they are going (academically) and why they are going there.
- Instruction should be exploratory and equip all learners for success.
- Students should rethink and revise their learning process.
- Students should evaluate they level of understanding
- Teachers should differentiate or tailor teaching and learning based on students’ readiness levels, interests, and learning style preferences.
- Learning activities should begin with experiential learning opportunities.

Introduction:

Nicolet Union High School regarded as one of the highest achieving high schools in the state, serves a diverse population of 1,100 students grades 9 through 12. This year’s graduating class of 257 students has 48 students who scored a 30 or higher on the ACT test, and two seniors received perfect scores of 36. The over-all minority student population is approximately 35% of the school, and there are a sizable percentage of students classified as “economically disadvantaged” as well. Nicolet has been concerned about the academic achievement gap for years, and has adopted the practices of “Understanding by Design” as one strategy to address the achievement gap issue.
The Challenge:

Whenever a school commits to making a change and adapting a radically different approach to schooling, faculty members need to be on-board and ready to move forward. It is understandable that administrators to want to march forward full-speed ahead on promising new initiatives, however, if there isn’t buy-in from a critical mass of teachers, success will not happen. The challenge is for leaders to assess that the critical mass has been informed and educated on the new initiative and are now ready to move on it before implementation.

The Approach:

Develop a four-year plan, beginning with the end in mind. Understanding by Design will become woven into the fabric of Nicolet teaching: Early release and in-service days, peer coaching, classroom materials, walkthrough process, and evaluation process.

- **YEAR ONE-BIG PICTURE ITEMS**
  Within each individual department, determine/identify the major concepts (Enduring Understanding) for each course. What must students know five years for now? Get students thinking about these concepts in a framework that matter to them via Essential Questions.

- **YEAR TWO-THE LEARNING CONTINUUM**
  The road from targets to triumphs. Break apart major concepts into smaller attainable concepts-learning targets. Begin unit-level UbD planning within shared courses. Begin looking at assessment to collect evidence of growth and evidence of understanding. Continue to foster collaboration with colleagues. Develop performance assessments to be used in courses with multiple teachers.

- **YEAR THREE-LESSON DESIGN DETAILS**
  Assembling the Understanding by design pieces to get the complete picture. Design lessons with the end in mind, focusing on what students will know by the end of the unit. Develop student-centered learning activities. Develop common assessments for classes shared across multiple teachers. Evaluate and select appropriate resources.

- **YEAR FOUR-INSTRUCTIONAL DESIGN & DELIVERY**
  Instructional Design, Differentiation and Assessment. Continue unit-level planning and instructional design. Implement differentiation in classroom activities. Understand the role of formative activities and how they impact
instructional design and delivery decisions. Use rubrics to guide students through learning process.

The Results:

Although we are less than half way through the 3rd year of a 4 year initiative, we have seen many positive results that we believe will impact student learning. First, we have developed a Professional Learning Community where teachers are collaborating on curriculum to identify what is important for students to learn (enduring understanding). As a team teachers have also developed common assessments for common courses that is a radical change for this faculty. This year teachers will be working collaboratively on developing student-centered learning activities, and will evaluate educational resources.

Educational Value Points:

There are three major educational value points regarding Understanding by Design (UbD).

• First, educators must accept responsibility for the diverse individuals we teach. Educators need to build a vision of high-quality learning to help students prepare for college and career. Finally, educators need to build bridges between where our diverse students are and the content we teach.

• Accepting Responsibility means to build strong relationships with student. Study and respond to student cultures (cultural competence). Encourage student ownership in building positive learning communities (PBIS).

• To build a vision of powerful high-quality learning educators must identify what matters in the discipline (Enduring Understanding, Learning Targets) Ensure students understand what matters most (Authentic Assessment). Discover what’s relevant and compelling to students, and build student engagement in learning (Ian Jukes’21 Century Fluencies).

• Building bridges means that educators seek out students’ strengths and deficiencies (Formative Assessment), develop flexible teaching routines (how students are grouped), create learning options for varied needs (process, product and environment), coach for success (Summative Assessments and Rubrics) and monitor growth (determine the evidence to show understanding).
References:

*Understanding by Design* by Jay McTighe & Grant Wiggins, 2004, Association for Supervision and Curriculum Development, Alexandria, VA 22311-1714