### Transparent and Intentional Design

# Summary of the Literature

At its core, transparent and intentional course design means identifying specific and measurable learning goals and anticipating potential barriers to students' ability to achieve those learning goals. Learning goals are explicitly identified for students and clearly aligned with learning activities and assessments so students understand the rationale for what they are doing in the course. Ideally, learning goals and activities engage student interest by being relevant to real world issues and students' cultural background and experiences. Complex topics are scaffolded to build student learning over time, and expectations for learning activities and assessments are clearly articulated (e.g., support and guidance for participation in class discussion or group work, explicit and clear grading criteria and/or rubrics, examples of successful student work). Additionally, effective intentional course design provides learning opportunities for students that are varied, active, and interactive (e.g., think-pair-share, collaborative or team-based learning, problem-solving learning). Ideally, students are provided with some degree of flexibility in how they engage with course material and demonstrate their learning, as students are motivated to learn more deeply when they have a stronger sense of agency over their learning.

Additionally, a transparent and intentionally-designed learning environment is supportive of the learning process. Educators provide ample opportunities for students to receive supportive feedback on their work and make adjustments as needed. Frequent low-stakes, formative assessments build student confidence and skill, model distributed learning (rather than cramming), and encourage student ownership of their learning. Students are encouraged to reflect on their learning and have opportunities throughout the course to provide feedback on how well the course design and learning environment are working for them. Likewise, educators continually reflect on and adapt their teaching approaches to address barriers to student learning.

# Annotated Bibliography

## Getting Under the Hood: How and for Whom Does Increasing Course Structure Work?

Eddy, Sarah L., and Kelly A. Hogan. "Getting under the hood: How and for whom does increasing course structure work?." *CBE—Life Sciences Education* 13.3 (2014): 453-468.

### Keywords

- Course Structure
- Active Learning
- Achievement Gap
- Racial/Ethnic Groups
- First-Generation Students

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## Summary

The article investigates the impact of increased course structure on student achievement in undergraduate biology courses, focusing on different student populations. The study reveals that a "moderate-structure" course, characterized by frequent graded assignments and in-class activities, improves performance for all students but disproportionately benefits black students and first-generation students, significantly reducing achievement gaps. The research suggests that the improvement is mediated by increased student engagement, better time management, and a stronger sense of community within the classroom. This study underscores the importance of structured course design in enhancing learning outcomes and promoting equity in education.

## Practical Actions Recommended

1. **Implement Frequent Graded Assignments:**
    - Introduce regular homework and quizzes to ensure continuous engagement and preparation.
    - Example: Assign weekly online quizzes that cover the reading material and concepts discussed in class.
2. **Incorporate In-Class Activities:**
    - Design interactive activities that promote active learning and collaboration among students.
    - Example: Use clicker questions or group problem-solving exercises during lectures to reinforce key concepts.
3. **Promote Distributed Learning:**
    - Encourage students to engage with the material regularly rather than cramming before exams.
    - Example: Schedule short, graded assignments throughout the semester to help students maintain a consistent study routine.
4. **Foster a Sense of Community:**
    - Create a classroom environment that supports collaboration and mutual support among students.
    - Example: Organize group projects and peer-review sessions to build a supportive learning community.
5. **Address the Needs of Diverse Student Populations:**
    - Pay special attention to the needs of underrepresented and first-generation students to close achievement gaps.
    - Example: Offer additional support, such as study groups or tutoring sessions, specifically targeting students who may struggle more with course content.
6. **Encourage Student Accountability:**
    - Use assignments and activities that require students to take responsibility for their own learning.
    - Example: Implement preparatory assignments that students must complete before coming to class, ensuring they are ready to participate actively.
7. **Enhance Engagement through Relevance:**
    - Make course content relevant to students' lives and future careers to increase motivation and interest.

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    - Example: Relate scientific concepts to real-world issues and current events to show the practical application of the material.
8. **Utilize Learning Management Systems (LMS):**
    - Leverage technology to manage course structure and facilitate student engagement.
    - Example: Use the LMS to post assignments, provide feedback, and track student progress, making it easier for students to stay organized and on track.

## Teaching More by Lecturing Less

Knight, Jennifer K., and William B. Wood. "Teaching more by lecturing less." *Cell Biology Education* 4.4 (2005): 298-310.

### Keywords

- Interactive Learning
- Active Learning
- Peer Instruction
- Student Engagement
- Conceptual Understanding
- Higher Education

### Summary

The article examines the effects of reducing traditional lecture time in favor of interactive and cooperative learning strategies in an upper-division developmental biology course. The authors compared two semesters: one taught using a traditional lecture format and another incorporating interactive methods such as peer instruction, group work, and formative assessments with clicker questions. The findings revealed that the interactive approach led to significantly higher student learning gains and better conceptual understanding. The study suggests that even moderate shifts towards interactive teaching can enhance learning outcomes, particularly in large lecture courses.

### Practical Actions Recommended

1. **Implement Peer Instruction:**
    - Use clicker questions during lectures to engage students in active learning and peer discussions.
    - Example: Pose multiple-choice questions during class, have students vote individually, discuss with peers, and vote again to reinforce understanding.
2. **Incorporate Group Work:**
    - Organize students into small groups to work collaboratively on problems and in-class activities.
    - Example: Assign students to diverse groups and include group activities in both lecture and lab sessions to foster collaboration and deeper learning.
3. **Use Formative Assessments:**
    - Frequently assess student understanding through in-class questions and activities, providing immediate feedback.

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    - Example: Use clicker questions to gauge understanding during lectures and adjust instruction based on student responses.
4. **Reduce Lecture Time:**
    - Decrease the amount of time spent lecturing to allow for more interactive and student-centered activities.
    - Example: Limit traditional lecturing to 60-70% of class time and use the remaining time for interactive engagement.
5. **Encourage Student Participation:**
    - Create opportunities for all students to participate actively in class, promoting a more inclusive learning environment.
    - Example: Encourage students to ask questions and participate in discussions, making the classroom dynamic and interactive.
6. **Provide Diverse Learning Activities:**
    - Use a variety of teaching methods to cater to different learning styles and promote conceptual understanding.
    - Example: Incorporate activities such as concept mapping, problem-solving sessions, and discussions of journal articles to engage students in multiple ways.
7. **Enhance Student Responsibility for Learning:**
    - Encourage students to take more responsibility for their learning by assigning preparatory work and promoting self-directed study.
    - Example: Assign reading and homework problems in advance, and use class time to address areas of difficulty identified from student submissions.
8. **Foster a Supportive Learning Environment:**
    - Create a classroom atmosphere that supports collaboration, mutual respect, and active engagement.
    - Example: Use a grading incentive for effective group work and provide guidance on managing group dynamics to ensure positive collaboration.

## Structure Matters: Twenty-One Teaching Strategies to Promote Student Engagement and Cultivate Classroom Equity

Tanner, Kimberly D. "Structure matters: twenty-one teaching strategies to promote student engagement and cultivate classroom equity." *CBE—Life Sciences Education* 12.3 (2013): 322-331.

### Keywords

- Student Engagement
- Classroom Equity
- Active Learning
- Inclusive Teaching
- Biology Education
- Teaching Strategies

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## Summary

The article by Kimberly D. Tanner outlines twenty-one teaching strategies designed to promote student engagement and foster classroom equity in biology education. Tanner emphasizes that while significant attention is often given to the content of what is being taught, the manner in which it is taught and to whom it is taught are equally critical. The strategies presented aim to create an inclusive and fair learning environment that supports all students, particularly those who may feel marginalized or disengaged. These strategies are organized around five overarching goals: giving students opportunities to think and talk about biology, encouraging and managing the participation of all students, building an inclusive classroom community, monitoring behavior to cultivate divergent thinking, and ensuring all students are engaged in learning. The practical recommendations are rooted in research and provide actionable steps for educators to enhance their teaching practices.

## Practical Actions Recommended

1. **Giving Students Opportunities to Think and Talk About Biology**
    - **Wait Time**: Extend wait time after posing a question to allow more students to think and volunteer responses.
        - *Example*: Count silently to five after asking a question before calling on a student.
    - **Allow Students Time to Write**: Give students a minute to write down their thoughts before sharing with the class.
        - *Example*: Ask students to jot down their initial ideas on an index card.
2. **Encouraging, Demanding, and Actively Managing the Participation of All Students**
    - **Hand Raising**: Structure discussions so that students must raise their hands and wait to be called on.
        - *Example*: Explicitly ask for hands from students who have not yet participated.
    - **Random Calling Using Popsicle Sticks/Index Cards**: Randomly select students to answer questions to ensure diverse participation.
        - *Example*: Use a cup filled with popsicle sticks labeled with student names to select respondents.
3. **Building an Inclusive and Fair Classroom Community for All Students**
    - **Learn or Have Access to Students' Names**: Use name tents or index cards to address students by their names.
        - *Example*: Create name tents that students use during class to help learn and use their names.
    - **Integrate Culturally Diverse and Relevant Examples**: Incorporate examples that reflect the diverse backgrounds of students.
        - *Example*: Use case studies that highlight contributions from scientists of various cultural backgrounds.
4. **Monitoring Behavior to Cultivate Divergent Biological Thinking**
    - **Ask Open-Ended Questions**: Pose questions that require more than a yes or no answer to encourage deeper thinking.
        - *Example*: Instead of asking "Is photosynthesis important?" ask "How does photosynthesis impact our ecosystem?"

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- **Do Not Judge Responses**: Respond to student answers neutrally to encourage participation without fear of judgment.
  - *Example*: Use phrases like "Thank you for sharing your idea" rather than immediately evaluating the correctness.

5. **Teaching All the Students in Your Classroom**
   - **Teach Them from the Moment They Arrive**: Engage students in meaningful activities from the first day of class to set a tone of active learning.
     - *Example*: Begin the first class with an interactive activity related to the course content instead of a traditional syllabus review.
   - **Collect Assessment Evidence from Every Student, Every Class**: Use various assessment techniques to gather feedback from all students regularly.
     - *Example*: Implement minute papers or exit tickets at the end of each class to gauge student understanding and adjust instruction accordingly.

## A Student-Centered Approach to Teaching: A Study of the Use of Workshops and the Reflective Journal

Laing, C. Linda. 2023. A Student-Centered Approach to Teaching: A Study of the Use of Workshops and the Reflective Journal. e-Journal of Business Education & Scholarship of Teaching 17(1): 15-26.

### Keywords


- Student-Centered Learning
- Experiential Learning
- Workshops
- Reflective Journal


### Summary

The article by C. Linda Laing explores the impact of student-centered learning approaches, specifically workshops and reflective journals, on undergraduate students in a Human Resource Management course. The study utilized questionnaires to gather feedback from students, revealing initial resistance to non-traditional teaching methods and a preference for structured learning environments. Over time, students began to appreciate the value of experiential learning and reflective practices, developing increased self-awareness and problem-solving skills. The findings suggest that while there is initial discomfort with student-centered approaches, these methods ultimately foster deeper learning and personal growth.

### Practical Actions Recommended

1. **Implement Workshops:**
   - **Action:** Use workshops to create an interactive, student-centered learning environment.

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    - **Example:** Incorporate role plays and group discussions to apply theoretical knowledge to practical situations.
2. **Use Reflective Journals:**
    - **Action:** Encourage students to maintain reflective journals to document their learning experiences and personal growth.
    - **Example:** Assign regular journal entries where students reflect on their class activities and feedback.
3. **Provide Clear Structure and Guidance:**
    - **Action:** Gradually introduce student-centered methods while providing clear instructions and support.
    - **Example:** Offer detailed guidelines and examples for reflective writing to help students adjust to new learning approaches.
4. **Facilitate Debriefing Sessions:**
    - **Action:** Conduct debriefing sessions to help students process their experiences and understand the value of reflective practices.
    - **Example:** After workshops, hold discussions where students share their reflections and learn from each other's experiences.
5. **Create a Supportive Learning Environment:**
    - **Action:** Establish a classroom climate that encourages trust, acceptance, and mutual respect.
    - **Example:** Use activities that build community and ensure that all students feel safe to express their thoughts and feelings.
6. **Address Emotional Responses:**
    - **Action:** Acknowledge and work with students' emotional reactions to new learning methods.
    - **Example:** Discuss the emotional aspects of learning and provide strategies to manage discomfort and anxiety.

## Preparing an Effective Syllabus: Current Best Practices

Slattery, Jeanne M., Janet F. Carlson. 2005. Preparing an Effective Syllabus: Current Best Practices. College Teaching 53(4): 159-164.

### Keywords


- Syllabus Design
- Student Engagement
- Course Planning
- Higher Education
- Instructional Strategies


### Summary

The article by Jeanne M. Slattery and Janet F. Carlson reviews best practices in syllabus design, highlighting its critical role in structuring, motivating, and evidencing the teaching and learning process. Syllabi serve as a contract between faculty and students, outline course

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objectives and assignments, and set the tone for the course. The authors emphasize the importance of creating a detailed, inclusive, and flexible syllabus that motivates students, aligns with course goals, and provides clear expectations. By incorporating components such as contact information, course description, goals, assignments, grading criteria, and schedules, a well-designed syllabus can enhance student engagement and success.

### Practical Actions Recommended

1. Set a Positive Tone:
    - Action: Use a warm and friendly tone in the syllabus to motivate and encourage students.
    - Example: Start the syllabus with an introduction that welcomes students and expresses enthusiasm for the course.
2. Include Detailed Course Information:
    - Action: Provide comprehensive information about the course, including contact details, office hours, and course descriptions.
    - Example: Clearly outline the course objectives, prerequisites, and any required materials or textbooks.
3. Outline Clear Course Goals and Objectives:
    - Action: Define specific, measurable goals that students should achieve by the end of the course.
    - Example: Use action verbs like "evaluate," "analyze," and "create" to describe the desired learning outcomes.
4. Describe Assignments and Grading Criteria:
    - Action: Detail all assignments, their due dates, and the criteria for grading.
    - Example: Provide rubrics for major assignments to clarify how students will be assessed.
5. Create a Flexible but Structured Schedule:
    - Action: Develop a course schedule that includes important dates for exams, assignments, and readings.
    - Example: Include flexibility in the schedule to accommodate unforeseen events or student needs.
6. Incorporate Motivational Messages:
    - Action: Include positive statements that encourage students to take ownership of their learning.
    - Example: Explain the rationale behind assignments to help students understand their purpose and relevance.
7. Promote Accessibility and Inclusivity:
    - Action: Ensure the syllabus is accessible to all students and consider the needs of underrepresented groups.
    - Example: Provide information on university support services, such as tutoring centers, counseling services, and disability accommodations.

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# Effect of Syllabus Tone: Students' Perceptions of Instructor and Course

Harnish, R.J., Bridges, K.R. Effect of syllabus tone: students' perceptions of instructor and course. *Soc Psychol Educ* 14, 319–330 (2011). doi.org/10.1007/s11218-011-9152-4

## Keywords


- Syllabus Tone
- Classroom Climate
- Instructor Perception
- Student Engagement
- Course Evaluation
- First Impressions


## Summary

The study by Harnish and Bridges investigates how the tone of a course syllabus affects students' perceptions of their instructor and the course itself. The experiment manipulated the syllabus tone to be either friendly or unfriendly and measured students' reactions. Results indicated that a friendly syllabus tone led to perceptions of the instructor as warmer, more approachable, and more motivated to teach. Conversely, an unfriendly syllabus tone resulted in perceptions of the instructor as colder and the course as more difficult. These findings suggest that the initial tone set by the syllabus can significantly influence students' attitudes and engagement in a course.

## Practical Actions Recommended

1. **Use Friendly Language**
    - **Positive Language**: Write the syllabus in a warm and welcoming tone.
        - *Example*: Use phrases like "I welcome you to contact me outside of class hours" instead of "If you need to contact me outside of office hours."
    - **Humor and Personal Experiences**: Incorporate light humor and share personal experiences to make the syllabus more relatable.
        - *Example*: "This course is a bit like a restaurant. My job is like the chef in the restaurant. I want to serve you the most appetizing and nutritious food I can."
2. **Provide Rationale for Assignments**
    - **Explain Purpose**: Clearly explain the purpose of assignments and how they contribute to learning goals.
        - *Example*: "These activities will help you become a critical consumer of information about mental processes and behavior."
3. **Convey Compassion and Enthusiasm**
    - **Show Understanding**: Acknowledge that students may face challenges and offer support.
        - *Example*: "If you find yourself not understanding the assigned readings, please set up an appointment with me."

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- **Express Enthusiasm**: Demonstrate excitement and passion for the subject matter and teaching.
  - *Example*: "I hope you actively participate in this course because it makes the lectures more fun."

4. **Set Clear Expectations**
   - **Transparent Policies**: Clearly communicate course policies, expectations, and available resources.
     - *Example*: Outline the attendance policy with understanding, such as "Extenuating circumstances arise that can make attendance difficult. Please let me know if you cannot attend a class."
5. **Encourage Engagement**
   - **Active Participation**: Promote active participation as a key part of the learning process.
     - *Example*: "Come prepared to actively participate in this course. This is the best way to engage you in learning the material."

## Supporting Diverse Learning Styles: A Case Study in Student-Led Syllabus Design

Harding, Lauren Howard. "Supporting Diverse Learning Styles: A Case Study in Student Led Syllabus Design." *Journal of Political Science Education* 19.1 (2023): 83-90.

### Keywords


- Syllabus Design
- Negotiated Syllabus
- Student Led
- Learning Styles
- Active Learning


### Summary

The article presents a case study on student-led syllabus design implemented in an Honors American Government course. This approach aimed to accommodate diverse learning styles and increase student engagement. Students were surveyed on their preferred learning methods, assignment types, accountability mechanisms, and levels of active learning. The resultant syllabus incorporated both passive and active learning activities such as lectures, readings, debates, simulations, and group discussions. Student feedback indicated high satisfaction with the course, demonstrating enhanced motivation and engagement due to their involvement in the syllabus design process. The study concludes that student-led syllabus design can effectively address diverse learning preferences and promote a more engaging and inclusive learning environment.

### Practical Actions Recommended

1. **Conduct Surveys to Determine Learning Preferences:**

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- Use surveys to gather information on students' preferred learning methods, assignment types, and accountability mechanisms.
- Example: On the first day of class, distribute a survey asking students to rank their preferences for lectures, readings, group discussions, debates, and simulations.

2. **Incorporate a Mix of Learning Activities:**
   - Design a syllabus that balances traditional and active learning methods to cater to different learning styles.
   - Example: Include lectures and readings for those who prefer reflective learning and simulations and debates for those who prefer active learning.
3. **Adapt Assignments to Accommodate Diverse Learning Styles:**
   - Modify assignments to ensure all students can engage in a manner that suits their learning preferences.
   - Example: For a debate assignment, allow some students to participate actively while others contribute through research and analysis.
4. **Promote Student Ownership and Responsibility:**
   - Involve students in the decision-making process to enhance their sense of ownership and responsibility for their learning.
   - Example: Allow students to select topics for current events discussions and choose their roles in group projects.
5. **Foster Continuous Feedback and Adaptation:**
   - Create an environment where students feel comfortable providing feedback and suggest adjustments throughout the course.
   - Example: Regularly ask for student input on the effectiveness of different activities and make necessary adjustments based on their feedback.
6. **Balance Student Choices with Essential Content:**
   - Ensure that while students have input in the syllabus design, the core content and skills necessary for the course are not compromised.
   - Example: Maintain essential topics and skills in the syllabus while allowing flexibility in the methods used to teach these elements.
7. **Evaluate and Reflect on the Approach:**
   - Assess the impact of student-led syllabus design on learning outcomes and student satisfaction to refine the approach for future courses.
   - Example: Use pre-test and post-test evaluations to measure learning gains and gather detailed student feedback on the syllabus design process.

## The College Science Learning Cycle: An Instructional Model for Reformed Teaching

Withers, M. (2016). The College Science Learning Cycle: An Instructional Model for Reformed Teaching. *CBE—Life Sciences Education*, 15(es12), 1-12. doi:10.1187/cbe.15-04-0101

### Keywords


- College Science Learning Cycle (CSLC)
- active learning

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- student-centered teaching
- backward design, science education
- instructional design
- Engagement
- evaluation

### Summary

The article by Michelle Withers introduces the College Science Learning Cycle (CSLC), an instructional model designed to help college science faculty adopt student-centered, active-learning approaches. Adapted from the Biological Sciences Curriculum Study (BSCS) 5E model, the CSLC consists of three stages: engage, construct, and evaluate. This model is embedded within the framework of backward design, emphasizing the alignment of learning outcomes, assessments, and instructional activities. The CSLC aims to make the transition from traditional lectures to active learning more manageable for instructors by providing a structured approach to developing effective teaching materials. The article includes practical examples and resources to support faculty in implementing these strategies, ultimately aiming to enhance student engagement and learning outcomes in college science courses.

### Practical Actions Recommended

1. **Engage Stage:**
    - **Pique Student Interest:** Use relevant topics or hooks to capture student interest and relate content to real-world issues.
        - Example: Introduce a genetic disease like phenylketonuria (PKU) to engage students in learning about gene expression.
    - **Gauge Prior Knowledge:** Assess students' preconceptions and prior knowledge to tailor instruction effectively.
        - Example: Use pre-class quizzes or brainstorming sessions to identify students' understanding and misconceptions.
2. **Construct Stage:**
    - **Deliberate Practice:** Design activities that promote the practice of scientific skills and concepts, aligning with desired learning outcomes.
        - Example: Use clicker questions and group activities to help students understand the relationship between DNA sequences and protein synthesis.
    - **Scaffold Learning:** Break down complex concepts into manageable parts and provide clear instructions for each step.
        - Example: Guide students through the steps of identifying the reading frame and coding strand in gene sequences.
3. **Evaluate Stage:**
    - **Formative Assessments:** Incorporate assessments that provide timely feedback to both students and instructors on progress towards learning goals.
        - Example: Assign homework that requires students to analyze mutations in the PKU gene and predict their effects on protein function.

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    - **Synthesis Activities:** Use activities that require students to integrate and apply their knowledge in new contexts.
        - Example: Have students create examples of natural selection scenarios and evaluate their understanding of the concept.
4. **Backward Design:**
    - **Learning Outcomes:** Start with specific, assessable learning outcomes that guide the development of assessments and learning activities.
        - Example: Define outcomes such as "students will be able to predict changes in amino acid sequences caused by mutations."
    - **Align Activities:** Ensure that instructional activities and assessments are directly aligned with the learning outcomes.
        - Example: Design class activities that mirror the types of questions students will encounter on assessments.
5. **Use of Resources:**
    - **Existing Materials:** Adapt and repurpose existing course materials to fit the CSLC framework, rather than starting from scratch.
        - Example: Use a decision tree to evaluate and modify lecture content for active learning.
    - **Collaborative Tools:** Leverage available resources and collaborate with peers to share materials and strategies.
        - Example: Utilize online platforms like CourseSource for accessing reformed teaching materials.

## Engaging Students in Research and Self-Discovery: An Integrative and Student-Centered Approach to History of the English Language

Treglia, Maria Ornella. "Engaging students in research and self-discovery: An integrative and student-centered approach to History of the English Language." *Language*, vol. 99 no. 4, 2023, p. e210-e221. *Project MUSE*, https://doi.org/10.1353/lan.2023.a914200.

### Keywords

- History of English
- Writing-Intensive
- Ethnographic Research
- Student-Centered
- Equitable Pedagogy
- Language Identity

### Summary

The article by Maria Ornella Treglia presents a student-centered, culturally responsive pedagogical approach to teaching the History of the English Language (HEL) to diverse community college students. Treglia outlines a curriculum that integrates ethnographic research and multiple-draft writing assignments to enhance students' self-knowledge and academic confidence. The course covers various linguistic areas, including language theory, etymology, language policy, varieties of English, and language identity. By engaging in

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research related to their own communities, students develop a deeper understanding of language equality and the sociopolitical contexts of language. Treglia provides examples of student writing that demonstrate their engagement and learning outcomes, emphasizing the importance of validating students' voices and experiences in the classroom.

### Practical Actions Recommended

1. **Integrate Ethnographic Research:**
    - Assign students to gather information from family and community members.
    - Connect their findings to historical and sociopolitical contexts of the English language.
2. **Multiple-Draft Writing Assignments:**
    - Encourage students to write several drafts of their assignments to refine their understanding and improve their writing skills.
3. **Culturally Responsive Curriculum:**
    - Design the curriculum to include topics relevant to students' cultural and linguistic backgrounds.
    - Validate and incorporate students' home languages and cultural experiences into the classroom.
4. **Focus on Language Identity:**
    - Explore topics such as the etymology of students' names and the impact of language on personal and community identity.
    - Discuss language equality and the sociopolitical implications of language variations.
5. **Student-Centered Learning Outcomes:**
    - Develop learning outcomes that emphasize the connection between language, culture, identity, and globalization.
    - Ensure that students understand the relevance of historical linguistic changes to their own language use.
6. **Promote Self-Discovery and Academic Confidence:**
    - Create assignments that encourage students to reflect on their own linguistic heritage and identity.
    - Provide a supportive environment that fosters students' confidence in their academic abilities.
7. **Scaffold Complex Topics:**
    - Use creative and engaging methods to introduce linguistic terminology and historical facts.
    - Offer low-stakes assignments to build students' confidence and skills before tackling high-stakes projects.

## The (Ongoing) Plan for Student Success

Bazemore-Walker, Carthene R. "The (ongoing) plan for student success." *Peer Review* 18.1-2 (2016): 21-24.

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## Keywords

- Student Success
- Higher Education
- Curriculum Redesign
- Faculty Development
- Active Learning
- High-Impact Practices
- Transparency
- Problem-Centered Learning
- Underserved Students

## Summary

The article details the strategic efforts of Winston-Salem State University (WSSU), a historically black university, to enhance student success through a comprehensive redesign of their general education program and student support services. Under their strategic plan "Achieving Academic Distinction: The Plan for Student Success 2010-2015," WSSU focused on creating a coherent curriculum that integrates diverse disciplines and twenty-first-century skills, coupled with robust educational guidance. These efforts led to increased student retention, persistence, and graduation rates. The plan also emphasized faculty development, encouraging the adoption of active learning techniques and high-impact practices. Additionally, WSSU's participation in AAC&U projects facilitated the integration of transparency and problem-centered learning into their teaching methods, benefiting underserved minority students. The article highlights the ongoing challenges and the need for continuous improvement in fostering a comprehensive learning culture.

## Practical Actions Recommended

1. **Curriculum Coherence and Skill Integration:**
    - Design curricula that expose students to diverse disciplines while cultivating essential twenty-first-century skills.
    - Implement educational guidance and support systems to enhance student learning experiences.
2. **Faculty Development and Active Learning:**
    - Encourage faculty to adopt active learning techniques and high-impact practices.
    - Provide professional development opportunities that focus on novel pedagogical approaches.
3. **Transparent Teaching Practices:**
    - Clearly communicate the learning goals and structure of assignments.
    - Provide detailed criteria for success in advance and use annotated rubrics for clarity.
    - Incorporate peer grading to enhance understanding and application of concepts.
4. **Problem-Centered Learning (PCL):**
    - Develop assignments that require students to apply conceptual understanding to real-world problems.

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- Facilitate collaborative work through group-based problem-solving activities.
- Use peer instruction and personal response systems to measure and improve student understanding.

5. **Continuous Assessment and Feedback:**
    - Use frequent and authentic assessments to verify student mastery of learning outcomes.
    - Collect and reflect on student feedback to continuously improve teaching practices.

## Empowering College Students: UDL, Culturally Responsive Pedagogy, and Mindset as an Instructional Approach

Gentile, Amber L., and Mary Budzilowicz. "Empowering college students: UDL, culturally responsive pedagogy, and mindset as an instructional approach." *New Directions for Teaching and Learning* 2022.172 (2022): 33-42.

### Keywords


- Universal Design for Learning (UDL)
- Culturally Responsive Pedagogy (CRP)
- Growth Mindset
- Social Emotional Learning (SEL)
- Trauma Informed Practices (TIP)
- Inclusive Education


### Summary

The article explores the integration of Universal Design for Learning (UDL), Culturally Responsive Pedagogy (CRP), and Growth Mindset into a cohesive instructional approach aimed at addressing the diverse and holistic needs of college students. Emphasizing the importance of social-emotional learning (SEL) and trauma-informed practices (TIP), the authors present a model that supports student engagement, equity, and expert learning. This approach, grounded in research by Dweck, Hammond, and others, is designed to create an inclusive educational environment that values diversity and promotes student success through intentional and flexible instructional design. The authors provide practical strategies for implementing these principles within learning management systems to enhance student achievement.

### Practical Actions Recommended

1. **Universal Design for Learning (UDL) Principles:**
    - Design curriculum that offers multiple means of engagement, representation, and expression to accommodate diverse learning needs.
    - Example: Use various formats for course materials (videos, podcasts, readings) and provide options for students to demonstrate their understanding (written assignments, presentations, creative projects).
2. **Culturally Responsive Pedagogy (CRP):**

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- Incorporate students' cultural backgrounds and experiences into the learning process to make it more relevant and engaging.
- Example: Include diverse texts and perspectives in the curriculum and use culturally relevant teaching strategies such as storytelling and collaborative learning.

3. **Growth Mindset:**
   - Encourage a growth mindset by promoting the idea that abilities can be developed through effort and perseverance.
   - Example: Provide constructive feedback focused on students' efforts and strategies rather than their innate abilities, and create opportunities for students to reflect on their learning processes.
4. **Social Emotional Learning (SEL):**
   - Integrate SEL strategies to support students' emotional and social well-being, which are critical for effective learning.
   - Example: Start classes with check-ins to understand students' emotional states, use activities that build empathy and cooperation, and create a classroom environment that values each student's voice.
5. **Trauma Informed Practices (TIP):**
   - Implement TIP to create a safe and supportive learning environment for students who may have experienced trauma.
   - Example: Use a compassionate approach in interactions with students, provide clear and consistent expectations, and offer choices to empower students and reduce anxiety.
6. **Inclusive and Supportive Classroom Environment:**
   - Establish a classroom culture that fosters belonging and respects diversity.
   - Example: Greet students by name, use inclusive language, and create opportunities for all students to contribute and feel valued.
7. **Flexible Course Design:**
   - Design courses that are flexible and adaptable to meet the varying needs of students.
   - Example: Offer flexible deadlines and multiple ways for students to engage with the course content and demonstrate their learning.
8. **Use of Learning Management Systems:**
   - Leverage technology to support diverse learning needs and promote engagement.
   - Example: Use tools like discussion boards, interactive quizzes, and multimedia resources to create an interactive and accessible online learning environment.

## Faculty Development for Transparent Learning & Teaching: Perspectives from Teacher-Scholars

Carpenter, R., O'Brien, S., Martin, T., Fox, H., Pinion, C., Skees Hermes, S., Skubik-Peplaski, C., & Humphrey, C. (2021). Faculty Development for Transparent Learning & Teaching: Perspectives from Teacher-Scholars. *The Journal of Faculty Development*, 35(2), 58-64.

# Transparent and Intentional Design

## Keywords

- Transparent assignment design
- higher education
- student engagement
- faculty development
- COVID-19
- learning outcomes
- Metacognition
- TILT framework

## Summary

This article discusses the implementation and benefits of transparent assignment design in higher education, highlighting various initiatives undertaken by faculty developers to enhance student engagement and learning outcomes. The authors draw on the Transparent Learning and Teaching (TILT) framework by Winkelmes, emphasizing the importance of clearly communicating the purpose, tasks, and criteria of assignments to students. The article includes reflections from teacher-scholars at Eastern Kentucky University, detailing how they have applied transparent teaching methods in their courses. The insights provided show that transparency in teaching not only fosters student motivation and performance but also reduces inequities and supports metacognitive learning.

## Practical Actions Recommended

1. **Purpose, Task, Criteria Design:**
    - Clearly articulate the purpose of each assignment, explaining why it is important and how it contributes to the course's learning objectives.
    - Break down assignments into specific tasks with detailed instructions.
    - Provide criteria for success, including rubrics and examples of high-quality work.
2. **Flexible and Consistent Communication:**
    - Use technology to offer flexible instruction alternatives, especially in virtual learning environments.
    - Ensure consistent communication and provide clear, organized course content to promote depth in learning.
3. **Student-Centered Learning:**
    - Design assignments that allow students to direct their own learning and connect tasks to their personal motivations and goals.
    - Include reflective activities that help students understand their learning processes and achievements.
4. **Faculty Development Initiatives:**
    - Participate in professional learning communities (PLCs) focused on transparent teaching methods.
    - Engage in workshops and institutes that provide training on transparent assignment design.
5. **Feedback and Revision:**

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- Collect and act on student feedback to continually improve course design and instructional methods.
- Implement strategies such as the "Grade Proposal" system to encourage student self-assessment and metacognition.

## Course for STEM-Interested Freshmen, Demystifies Scientific Thinking through Analysis of Scientific Literature

Gottesman, A. J., & Hoskins, S. G. (2013). CREATE Cornerstone: Introduction to Scientific Thinking, a New Course for STEM-Interested Freshmen, Demystifies Scientific Thinking through Analysis of Scientific Literature. *CBE—Life Sciences Education*, 12, 59–72. doi:10.1187/cbe.12-11-0201

### Keywords

- CREATE strategy
- scientific thinking
- primary literature analysis
- critical thinking
- STEM education
- freshman course
- epistemological beliefs
- experimental design

### Summary

The article introduces the CREATE (Consider, Read, Elucidate hypotheses, Analyze and interpret data, Think of the next Experiment) strategy, a pedagogical approach designed to improve students' critical thinking, analytical skills, and understanding of scientific literature. Originally used with upper-level students, this strategy was adapted for freshmen in a course called Introduction to Scientific Thinking. The course aims to demystify scientific thinking and increase student engagement in STEM disciplines. Results indicate significant gains in students' critical thinking, experimental design abilities, and their understanding and attitudes towards science. The approach is cost-effective, does not require a lab component, and can be adapted to various scientific fields.

### Practical Actions Recommended

1. **Implement CREATE Strategy:**
   - **Consider:** Have students consider the main questions and hypotheses of scientific studies.
   - **Read:** Guide students to read and understand primary literature, breaking down complex methodologies and data.
   - **Elucidate Hypotheses:** Encourage students to elucidate hypotheses and underlying scientific questions.
   - **Analyze and Interpret Data:** Teach students to analyze and interpret data from scientific studies critically.
   - **Think of the Next Experiment:** Have students design follow-up experiments to apply their understanding and creativity.

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2. **Use Concept Mapping and Cartooning:**
    - Incorporate concept mapping to help students visualize relationships between scientific concepts.
    - Use cartooning to break down experimental methodologies and results, making them more accessible.
3. **Promote Metacognition:**
    - Engage students in activities that foster metacognition, helping them to track their understanding and thought processes.
4. **Focus on Real-World Applications:**
    - Use examples from current scientific research to make the learning process relevant and engaging.
    - Include discussions on the broader implications of scientific findings and their real-world applications.
5. **Facilitate Open-Ended Discussions:**
    - Encourage open-ended discussions and debates on scientific topics to promote critical thinking and engagement.
    - Allow students to question and critique scientific studies, fostering a deeper understanding of the scientific process.
6. **Author Interaction:**
    - Have students email questions to authors of scientific papers to gain insights into the research process and the lives of scientists.
    - Use author responses to demystify the research process and humanize scientists, making the field more approachable.

## Effective Task Design for the TBL Classroom

Roberson, B., & Franchini, B. (2014). Effective Task Design for the TBL Classroom. *Journal on Excellence in College Teaching*, 25(3&4), 275-302.

### Keywords


- Team-Based Learning (TBL)
- task design
- student engagement
- collaborative learning
- higher education
- instructional strategies
- critical thinking


### Summary

The article by Roberson and Franchini explores the principles and practices of designing effective tasks for Team-Based Learning (TBL) environments in higher education. Emphasizing that task design is crucial to the success of TBL, the authors argue that well-conceived tasks channel student knowledge, observation, and analysis toward concrete actions, making thinking visible and providing frequent, immediate feedback. The article

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highlights the need for tasks that require collective decision-making, stimulate higher-order thinking, and align with course learning goals. It also presents a conceptual framework for task design and provides practical examples across various disciplines to illustrate how these principles can be implemented.

### Practical Actions Recommended

1. **Focus on Concrete Actions:**
    - Design tasks that lead to specific, observable student actions, ensuring their thinking becomes visible.
    - Example: Create tasks that require students to make decisions or judgments based on their analysis of information.
2. **Incorporate Frequent Feedback:**
    - Provide opportunities for immediate feedback to students, helping them reflect on and adjust their thinking.
    - Example: Use peer evaluations and instructor feedback regularly throughout the course.
3. **Design Decision-Based Tasks:**
    - Create tasks that require students to make decisions that reveal their reasoning and understanding.
    - Example: Ask students to choose the best solution from a set of options and justify their choice.
4. **Align Tasks with Learning Goals:**
    - Ensure tasks are integrally connected to the overarching strategy of the course and directly tied to learning goals.
    - Example: Design tasks that reflect the kind of thinking and problem-solving typical of the discipline.
5. **Use the 4S Principles:**
    - **Significant Problem:** Select tasks that address compelling questions in the discipline.
    - **Specific Choice:** Delimit student actions to focus discussions and decisions.
    - **Same Problem:** Have all teams work on the same problem to foster comparative learning.
    - **Simultaneous Report:** Use methods like cards or posters for teams to report their decisions simultaneously.
6. **Scaffold Tasks:**
    - Break down complex tasks into smaller, manageable parts, and provide clear instructions for each step.
    - Example: Use naive tasks at the beginning of a learning sequence to surface preconceptions and prepare students for more complex tasks.
7. **Promote Critical Thinking:**
    - Design tasks that challenge students to evaluate, integrate, and respond to diverse inputs, fostering team coherence and critical thinking.
    - Example: Use scenarios that require students to apply theoretical concepts to practical problems.
8. **Integrate Disciplinary Actions:**
    - Identify and characterize the actions and decisions typical of the discipline, and design tasks that replicate these actions.

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- Example: In a history course, ask students to decide which account of an event is most convincing based on competing perspectives and evidence.