

TRANSPARENT DESIGN IN HIGHER EDUCATION TEACHING AND LEADERSHIP

**A Guide to Implementing the Transparency
Framework Institution-Wide to
Improve Learning and Retention**

*Edited by
Mary-Ann Winkelmes, Allison Boye,
and Suzanne Tapp*

Foreword by Peter Felten and Ashley Finley

Stylus

STERLING, VIRGINIA



COPYRIGHT © 2019 BY STYLUS PUBLISHING, LLC.

Published by Stylus Publishing, LLC.
22883 Quicksilver Drive
Sterling, Virginia 20166-2019

All rights reserved. No part of this book may be reprinted or reproduced in any form or by any electronic, mechanical or other means, now known or hereafter invented, including photocopying, recording and information storage and retrieval, without permission in writing from the publisher.

Library of Congress Cataloging-in-Publication Data

Names: Winkelmes, Mary-Ann, 1964- editor. | Boye, Allison, 1977- editor. | Tapp, Suzanne, 1966- editor.

Title: Transparent design in higher education teaching and learning : a guide to implementing the transparency framework institution-wide to improve learning and retention / edited by Mary-Ann Winkelmes, Allison Boye, and Suzanne Tapp ; foreword by Peter Felten and Ashley Finley.

Description: First edition. | Sterling, Va. : Stylus Publishing, 2019. | Includes index. | Includes bibliographical references.

Identifiers: LCCN 2018043726 (print) | LCCN 2018055456 (ebook) | ISBN 9781620368244 (Library networkable e-edition) | ISBN 9781620368251 (Consumer e-edition) | ISBN 9781620368237 (pbk. : alk. paper) | ISBN 9781620368220 (cloth : alk. paper)

Subjects: LCSH: Education, Higher--Aims and objectives--United States. | College teaching--United States. | Teacher-student relationships--United States. | Communication in education--United States. | Educational leadership--United States. | College dropouts--United States--Prevention.

Classification: LCC LA227.4 (ebook) | LCC LA227.4 .T736 2019 (print) | DDC 378.1/25--dc23

LC record available at <https://lcn.loc.gov/2018043726>

13-digit ISBN: 978-1-62036-822-0 (cloth)

13-digit ISBN: 978-1-62036-823-7 (paperback)

13-digit ISBN: 978-1-62036-824-4 (library networkable e-edition)

13-digit ISBN: 978-1-62036-825-1 (consumer e-edition)

Printed in the United States of America

All first editions printed on acid-free paper
that meets the American National Standards Institute
Z39-48 Standard.

Bulk Purchases

Quantity discounts are available for use in workshops and
for staff development.

Call 1-800-232-0223

First Edition, 2019

INTRODUCTION

The Story of TILT and Its Emerging Uses in Higher Education

Mary-Ann Winkelmes

The primary goal of the Transparency in Learning and Teaching in Higher Education (TILT Higher Ed) initiative is as urgent as it is simple: to make learning processes explicit and equitably accessible for all students. Transparent teaching and learning methods focus on the subject matter (the what) of a course as much as the why and the how—why teachers choose to manipulate students’ learning experiences as they do, how students acquire and master the course’s important lessons, and how the skills and knowledge they gain will continue to be relevant for students. Transparent instruction involves faculty/student discussion about several important aspects of academic work *before* students undertake that work: (a) the purpose of the work, including the knowledge that will be gained from completing it, the skills to be practiced and acquired, and how students might use those skills and that knowledge in their lives beyond college; (b) the tasks involved; and (c) the expected criteria and multiple examples of what those criteria look like in practice in the form of real-world work samples in the specific academic discipline. TILT Higher Ed began two decades ago with the belief that the most important change any teacher could make was a small adjustment (or “tilt”) rather than a massive revision—to offer students an honest look at the teacher’s rationale for what students are required to do, with the goal of boosting all students’ self-awareness of their learning processes. Since that time, transparent instruction has demonstrably increased several important predictors of college student success: academic confidence, sense of belonging in college, metacognitive self-awareness of skill development, and persistence (Winkelmes et al., 2016; Winkelmes, Calkins, & Yu, forthcoming). Importantly, those gains are enduring and equitable, and although they are statistically significant for all students we’ve studied, underserved students experience the greatest benefits. This chapter shares the path that TILT Higher Ed has traveled from the identification of transparency as an intentional, inclusive teaching strategy to its implementation

as a high-impact and equitable teaching practice, to its use as a framework for collaboration and strategic planning by faculty developers and teaching and learning centers, to its application by higher education leaders in cross-institutional and national initiatives focused on faculty development and student success. The chapter also reviews current research on how transparent instruction benefits student success equitably.

Following are several reasons for the growing popularity of transparent instruction across the United States and internationally:

1. Transparent instruction usually requires a small change to teaching practice, and it offers substantial gains for students. Just two transparently designed assignments in an academic term can offer significant benefits for student learning. To make an assignment more transparent (accessible, relevant) for students is relatively easy, consistent with most teachers' goals for student learning, and takes little time.
2. Transparent instruction is an equitable teaching practice and an instrument of social justice that can help to close college achievement gaps. Historically underserved students benefit to a greater degree from transparent instruction, although the gains are statistically significant for all students we have studied.
3. The benefits that students receive from transparent instruction persist for at least two years and perhaps longer.
4. By implementing transparent instruction faculty can contribute directly to institutional and national student success goals that have felt disconnected from their daily work. Student success initiatives often involve nonteaching administrators and staff in implementing financial assistance, tutoring, or advising programs, or targeted financial assistance. Faculty can increase the effectiveness of student success efforts directly by incorporating just one or two transparently designed exercises or assignments in their work with students.
5. The three-part Transparency Framework (purpose-task-criteria) can strengthen and support planning by higher education leaders of innovative projects that support the success of students and faculty.

These characteristics of transparent assignment design make it a powerful tool in combating inequity in students' educational experiences. Underserved students (underrepresented African American, Hispanic, Native American, and Pacific Islander students; students whose family incomes are in the bottom quartile; and first-generation college students comprise the majority of incoming college students in the United States, and they are about half as

likely to complete a college degree in four years as their White and Asian classmates who are not first-generation students and whose family incomes are above the bottom quartile (Ishitani, 2006; Tough, 2014; U.S. Department of Education, 2014). This unjust situation for new-majority students presents an equity crisis in higher education. Even high-achieving high school students can struggle in college, largely because they have no prior exposure to thinking and working like an expert in an academic discipline (Colomb & Williams, 1993; National Research Council, 2000). How might a new-majority college student approach her first chemistry lab report or art history paper if she has never seen what a successful chemistry lab report or art history paper looks like? High school training might have prepared her to use reliable evidence to support her hypotheses or ideas. But how would she determine an effective way to use a chemical reaction or a fifteenth-century painting as evidence? Without access to family members or friends or advisers who know what that sort of academic work looks like, or without the expertise or available time to consult other resources for the needed information, this student will flounder. Encountering a gatekeeper teaching approach in her first year will further threaten her success. Gatekeeper teaching practices deliver subject matter only, withholding information about how to understand and apply it, in order to advance those students already skilled at learning how to learn the material while discouraging and even failing those students without access to “how to” information. Such an approach to teaching is no longer sustainable for the new-majority college student in the United States. Transparent instructional practices provide our chemistry and art history student and all her classmates with the “how to” information they need to succeed as they begin their academic work. Transparent assignments engage students with teachers in discussing the purposes, tasks, and criteria for the work before students begin, locating all students as close as possible to the same starting line.

The Beginnings of TILT Higher Ed

To help set the stage for understanding transparency, its foundational concepts, and the context of this book, it is worth considering the history of the TILT project and the current research stemming from it. My work on transparent teaching and learning has its roots in a teaching seminar I offered at Harvard University’s Bok Center for Teaching and Learning in 1996–1997. Faculty and instructors in the seminar discussed ways to share with students the rationale behind our teaching choices, using metaphors like the Wizard of Oz pulling back a curtain to reveal hidden manipulations or seeing how the sausage was made. But these metaphors held negative connotations of undesirable disguised components that our teaching plans didn’t contain.

Transparency was the best word we could find to describe how we wanted students to understand our teaching plans. We wanted to remove any mystery they felt about their learning experiences in our courses.

The TILT project began in 2008 when I asked a group of faculty in a teaching seminar at the University of Chicago's Center for Teaching and Learning, "If you could change one thing about your teaching that would best improve your students' learning experiences, what would that single change be?" The group said they would need more information before they could offer a satisfying answer: were the students aware of the skills they were developing in the course, was the course increasing their confidence to continue in the discipline, were they becoming better judges of the reliability of new information in the field, did the course help them to discuss ideas with others and welcome alternative views? Their list of questions grew to become the very first TILT Higher Ed Survey.

Intended as a tool to provide faculty the information they needed to inform changes to teaching practice, the TILT Survey soon grew from a small pilot project to a much larger one. Data from over 15,000 students surveyed had the power to do even more than inform individual teachers' improvements. Patterns emerged that suggested which teaching changes could benefit various students across disciplines, geographic regions, and types of postsecondary institutions. We explored a variety of teaching strategies, listed in Figure I.1.

Research and Evidence on the Impact of Transparent Instruction

Transparent assignment design seemed a good choice to study on a large scale because initial testing showed it was almost equally helpful across disciplines and for students at all levels of expertise (Winkelmes, 2013). It is a small and relatively simple change that many faculty accept as consistent with their teaching goals, it can be aimed at introductory courses across the disciplines, and it can be tested with an objective measure of success available in the form of student retention rates just one term or one year later.

A national study with the Association of American Colleges & Universities (AAC&U) funded by TG Philanthropy in 2014–2015 demonstrated that transparent instruction about problem-centered assignments has significant, equitable benefits for students; a separate University of Nevada, Las Vegas, study indicated those benefits are long-term. The AAC&U study identified transparent instruction as an easily adoptable teaching method that produces learning benefits already linked with student success (Winkelmes et al., 2016). Applying transparency to assignments demonstrably increased several important success predictors for students: confidence, belonging,

Figure I.1. Transparent teaching methods.

Transparent teaching methods^a help students understand *how* and *why* they are learning course content in particular ways by focusing on the purposes, tasks, and criteria for their academic work. This list of contexts for transparent instruction is adapted frequently as instructors identify further ways to use the purpose-task-criteria framework to provide information to students about learning and teaching practices.

Discuss assignments' learning goals and design rationale before students begin each assignment

- Chart on one page the skills students will practice in each assignment.
- Begin each assignment by defining the learning benefits to students (skills practiced, content knowledge gained, the tasks to be completed, the criteria for success).
- See Transparent Assignment Templates: for faculty; for students [Figures I.2 and I.3].
- See examples of less transparent and more transparent assignments.
- Provide criteria for success in advance and offer multiple examples. Invite students to indicate how criteria apply to examples and discuss.

Invite students to participate in class planning, agenda construction

- Give students an advanced agenda (two or three main topics) one or two days before class and ask them to identify related subtopics, examples, or applications they wish to learn about.
- Review the agenda at the outset of each class meeting, including students' subtopics.
- Explicitly evaluate progress toward fulfilling the agenda at conclusion of each class meeting.
- In large courses, a class committee gathers and contributes students' subtopics to agendas.
- Inform students about ideas and questions to be discussed in upcoming class meetings.

Gauge students' understanding during class via peer work on questions that require students to apply concepts you've taught

- Create scenarios/applications to test understanding of key concepts during class.
- Allow discussion in pairs, instructor's feedback, and more discussion.
- Provide explicit assessment of students' understanding, with further explanation if needed, before moving on to teach the next concept.

Explicitly connect "how people learn" data with course activities when students struggle at difficult transition points

- Offer research-based explanations about concepts or tasks that students often struggle to master in your discipline.

Engage students in applying the grading criteria that you'll use on their work

- Share criteria for success and examples of good work, then invite students to apply these criteria to drafts of a peer's work and to their own work.

(Continues)

Figure I.1. (Continued)**Debrief graded tests and assignments in class**

- Help students identify patterns in their returned, graded work: what kinds of test questions were missed; what types of weaknesses characterize the assigned work?
- Ask students to review any changes or revisions they made and whether these resulted in improvements or not.
- Ask students to record the process steps they used to prepare for the exam or complete the assignment and to analyze which parts of the process were efficient, effective, inefficient, or ineffective.
- Offer running commentary on class discussions to indicate what modes of thought or disciplinary methods are in use.
- Explicitly identify what types of questioning/thinking and what skills of the discipline your students are using in each class meeting.
- Invite students to describe the steps in their thought process for addressing/solving a problem.
- Engage students in evaluating which types of thinking are most effective for addressing the issues in each class discussion.

a. Examples of these strategies are found online at TILTHigherEd.org under “TILT Higher Ed Examples and Resources” (Winkelmes et al., n.d.).

Note. Reproduced with permission of Mary-Ann Winkelmes.

and metacognitive awareness of skill development. The benefits for students were statistically significant, with even larger gains for first-generation, low-income, and underrepresented college students. The faculty teams from each school later published studies and reflections on the benefits for themselves and their students at their respective institutions, and AAC&U colleagues published on lessons learned and the impact on students’ work samples scored using an AAC&U Valid Assessment of Learning in Undergraduate Education (VALUE) rubric for problem-solving (McNair, 2016).

Tia McNair and Ashley Finley at the AAC&U were my coinvestigators in the national study. We intentionally selected a group of seven minority-serving institutions (MSIs) that were broadly representative of U.S. institutions of higher education, so that people viewing the results would see a collaborator in the group with whom they could identify. The schools ranged in size from small to very large; in geographical distribution across the United States; in locations in urban and rural settings, including both public and private institutions; in type, including two-year, four-year, and research universities; and in type of MSI including Native American–serving and Hispanic-serving institutions as well as historically Black colleges and universities.

The project included 1,180 students and 35 faculty. Each instructor taught 2 simultaneous sections of the same course and agreed to teach 1 as a control group and the other as an intervention group in which they would revise 2 take-home assignments to make them more transparent (accessible, relevant, problem-centered). We required only 2 transparently designed assignments

Figure I.2. Transparent Assignment Framework for faculty.

Transparent Assignment Template

This template can be used as a guide for developing, explaining, and discussing class activities and out-of-class assignments. Making these aspects of each course activity or assignment explicitly clear to students has demonstrably enhanced students' learning in a national study.^a

Assignment Name
Due date:

PURPOSE: *Define the learning objectives, in language and terms that help students recognize how this assignment will benefit their learning. Indicate how these are connected with institutional learning outcomes, and how the specific knowledge and skills involved in this assignment will be important in students' lives beyond the contexts of this assignment, this course, and this college.*

Skills: The purpose of this assignment is to help you practice the following skills that are essential to your success in this course/in school/in this field/in professional life beyond school:

Terms from Bloom's Taxonomy of Educational Objectives may help you explain these skills in language students will understand. Listed from cognitively simple to most complex, these skills are:

- understanding basic disciplinary knowledge and methods/tools
- applying basic disciplinary knowledge/tools to problem-solving in a similar but unfamiliar context
- analyzing
- synthesizing
- judging/evaluating and selecting best solutions
- creating/inventing a new interpretation, product, theory

Knowledge: This assignment will also help you to become familiar with the following important content knowledge in this discipline:

- . . .
- . . .

TASK: *Define what activities the student should do/perform. "Question cues" from this chart might be helpful:*

www.asainstitute.org/conference2013/handouts/20-Bloom-Question-Cues-Chart.pdf. List any steps or guidelines, or a recommended sequence for the students' efforts. Specify any extraneous mistakes to be avoided. If there are sound pedagogical reasons for withholding information about how to do the assignment, protect students' confidence and sense of belonging in college with a purpose statement something like this: "The purpose of this assignment is for you to struggle and feel confused while you invent and test your own approach for addressing the problem."

(Continues)

Figure I.2. (*Continued*)**CRITERIA FOR SUCCESS:**

Define the characteristics of the finished product. Provide multiple examples of what these characteristics look like in real-world practice, to encourage students' creativity and reduce their incentive to copy any one example too closely. Engage students in analyzing multiple examples of real-world work before the students begin their own work on the assignment. Discuss how excellent work differs from adequate work. This enables students to evaluate the quality of their own efforts while they are working, and to judge the success of their completed work. It is often useful to provide or compile with students a checklist of characteristics of successful work. Students can also use the checklist to provide feedback on peers' coursework. Indicate whether this task/product will be graded and/or how it factors into the student's overall grade for the course. Later, asking students to reflect and comment on their completed, graded work allows them to focus on changes to their learning strategies that might improve their future work.

© 2013 Mary-Ann Winkelmes. *a.* See Winkelmes (2013); Winkelmes et al. (2016).
Note. Reproduced with permission of Mary-Ann Winkelmes.

because we wanted to see how small a change could produce significant benefits for students' learning. We avoided a rigid protocol for the revisions, recognizing that future instructors reading our study would be most likely to try transparent instruction if we measured what happened when faculty implemented transparent instruction at their own discretion in a way consistent with their teaching practice. We offered the Transparency Framework (Figure I.2) to faculty to guide their implementation of transparent instruction, along with a workshop in which they collaborated to offer feedback on drafts of the revised, more transparent assignments. Finally, we offered the participants a checklist for designing transparent assignments (see Figure 2.3) and a follow-up webinar session to support their work to revise a second assignment.

At the beginning of the term, we gathered students' views (using an online TILT Higher Ed presurvey) about their academic confidence and their mastery of a group of skills that many colleges and universities include among their institutional learning outcomes, and that employers prioritize (Hart, 2013, 2015). This survey established baseline equivalence at the beginning of term between the students who received the transparent treatment and those who did not in regard to their academic confidence and their self-described skill mastery (Winkelmes et al., 2016, Figure 5). At the end of the term, students who received more transparency (based on nine questions from the online TILT Higher Ed End-of-Term Survey that triangulated around the three concepts of purpose, task, and criteria) reported significantly larger gains in three areas that are important predictors of student success: (a) academic confidence, (b) sense of belonging, and (c) awareness of their mastery of the skills that employers value most when hiring (TILT Survey, 2015–2016). Important studies have already connected academic confidence

and sense of belonging with students' greater persistence and higher grades (Aronson, Fried, & Good, 2002; Paunesku et al., 2015; Walton & Cohen, 2011). Scholars have identified metacognition as an essential learning skill (National Research Council, 2000; Wang, Haertel, & Walberg, 1994), and recent national surveys identify the skills that employers value most when hiring new employees (Hart Research Associates, 2013, 2015). Although the benefits for all students in the aggregate who received more transparency were statistically significant, the benefits for first-generation, low-income, and underrepresented students were greater, with a medium-to-large magnitude of effect.

Students who receive transparent instruction experience long-term benefits, according to a separate study at UNLV (Winkelmes, Calkins, & Yu, forthcoming). Further, those long-term gains appear to be greater for first-generation and low-income students of all ethnicities, just as the short-term gains were greater for underserved students in the AAC&U study. At UNLV, a majority of undergraduate students belong to the "underserved" cohort of either ethnically underrepresented or first-generation (in their family to attend college) or low-income students, or a combination of these (UNLV Data Warehouse, 2018). *U.S. News* ranked UNLV in first place for campus ethnic diversity at national universities in 2017 (*U.S. News and World Report*, 2017). The UNLV study tracked annual retention (re-enrollment in college) rates for a group of 870 UNLV undergraduate students who received transparent instruction in at least 1 course when they were first-time, full-time, first-year students in the fall term of 2015. One year later, those students were retained (still enrolled as full-time students at UNLV) at a rate 15.52% higher than the rest of their cohort. Two years later, those students who had received transparent instruction when they were first-time, full-time, first-year students persisted as full-time students at UNLV at a rate 13.92% greater than the rest of their cohort. Some underserved students benefited to a greater degree. For example, the mean retention gains for the group of 361 low-income students who received transparent instruction in their first year were 19.74% greater than low-income students in the rest of their cohort after 1 year and 19.52% greater than low-income students in the rest of their cohort after 2 years (Winkelmes et al., forthcoming). As a result of these findings, new faculty at UNLV receive information about transparent assignment design, all new UNLV students receive a student version of the Transparent Assignment Template from the university registrar, and the university's minimum requirements for syllabi specify that syllabi include a statement encouraging students to seek transparent instruction, with a link to the online Transparent Assignment Framework for Students (Figure I.3) (UNLV, Office of the Vice President and Provost, 2017).

The social justice appeal of transparent instruction has helped to increase its popularity. Transparent instruction is an inclusive, equitable teaching

Figure I.3. Transparent Assignment Framework for students.

The Unwritten Rules:

Decode Your Assignments and Decipher What's Expected of You

Did you know?

- UNLV researchers demonstrated in a national study that transparency around academic assignments enhances students' success at statistically significant levels, with even greater gains for historically underserved students (Winkelmes et al., 2016).
- When faculty make the purpose, tasks, and criteria of an academic assignment clear before students begin to work on it, students are more likely to experience greater academic success with that assignment, developing the knowledge, disposition, and skills necessary to succeed both at school and in life (in comparison to when students experience less clarity around purpose, tasks, and criteria for their academic work (Winkelmes et al., 2016).
- For UNLV students, benefits also included a significantly higher rate of retention (returning to college each fall term) up to two years after experiencing transparent instruction (Gianoutsos & Winkelmes, 2016; Winkelmes et al., forthcoming 2018).
- An inclusive learning environment benefits all students and offers more equitable learning opportunities for underserved students. Research on student learning links college students' academic confidence and sense of belonging with higher GPAs, persistence, and retention rates (Walton and Cohen, 2011).
- College students increased their test scores when supported by a system that advocated the belief that intelligence is not fixed but rather malleable. A year later, these students were 80% less likely to drop out of college (Aronson et al, 2002).

WHAT STUDENTS CAN DO:

Before you begin working on an assignment or class activity, ask the instructor to help you understand the following. (Bring this document to help frame the conversation.)

Purpose

- Skills you'll practice by doing this assignment
- Content knowledge you'll gain from doing this assignment
- How you can use these in your life beyond the context of this course, in and beyond college

Task

- What to do
- How to do it (Are there recommended steps? What roadblocks/mistakes should you avoid?)

Criteria

- **Checklist** (Are you on the right track? How to know you're doing what's expected?)
- **Multiple real-world examples of successful work, discussed in class** (What's good/better/best about these examples? Use the checklist to identify the successful parts.)

Note. Reproduced with permission of Mary-Ann Winkelmes.

practice that's relatively easy for faculty to adopt because it is consistent with their goals for high-quality learning by an increasingly diverse population of students. The Transparency Framework is intentionally adaptable to a broad spectrum of teaching and learning styles. Because even a small amount of transparent instruction is beneficial for students, teachers can begin with small adjustments to their existing practice and materials and witness benefits for their students almost immediately. Teachers have observed a cumulative effect of higher quality student work when they create additional transparent assignments, class activities, and teaching materials over time. Instructors working individually as well as those working in teams or groups have witnessed that transparent instruction not only increases student success but also benefits faculty by reducing student procrastination and last-minute requests for help, faculty grading time, and later questions or challenges about grades (Copeland, Winkelmes, & Gunawan, 2018; Howard, Winkelmes, & Shegog, 2019; Winkelmes et al., 2015).

For any institution seeking to right the inequities in college students' educational experiences, focusing transparent instruction on assignments in introductory courses can help to increase underserved students' success, especially in their first year of college (when the greatest numbers drop out).

Overview of Chapters

Part One of this book focuses on the fundamentals of transparent design. Chapters 1 and 2 discuss why and how transparent instruction works and suggest strategies for instructors who wish to adopt it. Chapter 3 offers insights from the faculty perspective, directly from instructors who implemented the Transparency Framework in their own classrooms. The chapters that follow describe additional strategies for applying the Transparency Framework to promote equitable instruction and transparent leadership in higher education contexts beyond assignments.

Part Two focuses specifically on the work of educational developers. Chapter 4 outlines the variety of ways that centers for teaching and learning (CTLs) have adopted the framework, and chapters 5, 6, and 7 offer additional details on applications for CTLs, which include organizing discipline-based or cross-disciplinary teams of instructors in applying and sharing best practices, framing individual consultations, focusing new programming efforts, integrating data collection into scholarship of teaching and learning (SoTL) projects, and guiding curricular revision. The framework can also elevate faculty reflections about teaching (see chapters 3 and 10).

Part Three of this book focuses on even broader implementation of transparency across higher education. Faculty developers have used the purpose-task-criteria framework to unite multiple campus collaborators

around a common language and shared strategic plan (chapter 8). The framework can also help to connect the daily work of faculty with the learning goals that departments, programs, and institutions hope to demonstrate, even when those goals are defined in broad terms—for example, across a state system of community and technical colleges (chapter 9). Following the models of the AAC&U and UNLV studies, more schools are now combining TILT survey data (measuring predictors of student success) with institutional data about retention, grades, and demographics to demonstrate the ways that faculty development programs contribute to institutional goals (chapters 8 and 10). Communications with institutional review boards (IRBs) across the country have helped TILT Higher Ed to revise its protocols to help remove barriers for faculty, faculty developers, and institutional analysis staff to join large SoTL projects (chapters 7, 10, and 11). Insights and input from many IRBs have enabled data analysis of the impact of large-scale implementation of transparent instruction on student learning and student retention through collaborations with state colleges and universities in California, Florida, Indiana, Tennessee, Texas, and Washington, as well as smaller institutions of higher education across the United States.

Some of our authors worked with teams of teachers across multiple institutions who adopted transparent instruction in projects aimed to shrink achievement gaps at their institutions or across their state systems (chapters 9–11). The framework of purpose-task-criteria can even help to unite faculty with leaders at the institutional and national levels around scaling up student success and assessing students' learning. For example, using the same framework to describe the purposes, tasks, and criteria for student learning at the national, institutional, program, departmental, course, and assignment levels provides a direct and tangible link between the everyday work of faculty and the long-term student learning goals that institutions and national organizations promote. Thus the TILT framework can address two great needs in higher education assessment that the National Institute for Learning Outcomes Assessment has identified: more faculty involvement and a sustained culture of assessment (Kuh, Jankowski, Ikenberry, & Kinzie, 2014). As chapter 12 discusses, the framework offers a simple tool for aligning individual assignments and academic work samples with the educational goals of teachers, departments, programs, and institutions and ultimately the desired learning outcomes of national organizations like the Degree Qualifications Profile advocated by the Lumina Foundation or the Essential Learning Outcomes recommended by AAC&U. The Transparency Framework can enrich national conversations about student learning and how to assess it.

The many examples in this book encourage readers to find further applications of the Transparency Framework by making small changes to practice

that can offer large benefits in support of increasingly equitable opportunities for success in higher education. Toward that end, all TILT Higher Ed materials and resources are available online at TILTHigherEd.org and are designed to be copied, printed, distributed, adapted, and shared (with citation according to the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 international license).

References

- Aronson, J., Fried, C. B., & Good, C. (2002). Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence. *Journal of Experimental Social Psychology, 38*, 113–125.
- Colomb, G., & Williams, J. (1993). Why what you don't know won't help you. *Research in the Teaching of English, 23*(3), 252–264.
- Copeland, D. E., Winkelmes, M. A., & Gunawan, K. (2018). Helping students by using transparent writing assignments. In T. L. Kuther (Ed.), *Integrating writing into the psychology course: Strategies for promoting student skills* (pp. 26–37). Society for the Teaching of Psychology. Available from <http://teachpsych.org/ebooks/integratingwriting>
- Gianoutsos, D., & Winkelmes, M. A. (2016, Spring). Navigating with transparency. *Proceedings of the Pennsylvania Association of Developmental Educators*, (pp. 15–19). Available from <http://www.pade-pa.org/annual-conference/conference-proceedings>
- Hart Research Associates. (2013). *It takes more than a major: Employer priorities for college learning and student success*. Washington DC: Association of American Colleges & Universities.
- Hart Research Associates. (2015). *Falling short? College learning and career success*. Washington DC: Association of American Colleges & Universities.
- Howard, T., Winkelmes, M. A., & Shegog, M. (2019, January). Transparency teaching in the virtual classroom: Assessing the opportunities and challenges of integrating transparency teaching methods with online learning. *Journal of Political Science Education*. doi: 10.1080/15512169.2018.1550420
- Ishitani, T. (2006). Studying attrition and degree completion behavior among first-generation college students in the United States. *The Journal of Higher Education, 77*(5), 877.
- Kuh, G. D., Jankowski, N., Ikenberry, S. O., & Kinzie, J. (2014). *Knowing what students know and can do: The current state of student learning outcomes assessment in U.S. colleges and universities*. Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment.
- McNair, T. B. (Ed.). (2016). Transparency and Problem-Centered Learning [Special issue]. *Peer Review, 18*, 1/2. Available from <http://www.aacu.org/peerreview/2016/winter-spring>
- National Research Council. (2000). *How people learn: Brain, mind, experience, and school* (expanded ed.). Washington DC: The National Academies Press.

- Paunesku, D., Walton, G. M., Romero, C., Smith, E. N., Yeager, D. S., & Dweck, C. S. (2015). Mind-set interventions are a scalable treatment for academic underachievement. *Psychological Science, 26*, 784–793.
- TILT Survey. (2015–2016). *End-of-term TILT survey responses for UNLV fall 2015 first-time, full-time, first-year students*. Las Vegas, NV: University of Nevada, Las Vegas.
- Tough, Paul. (2014). Who gets to graduate? *New York Times Magazine, 18*, 26–30.
- University of Nevada, Las Vegas (UNLV) Office of the Vice President and Provost. (2017). *Minimum criteria for syllabi—Academic year 2017–2018*. Las Vegas, NV: University of Nevada, Las Vegas. Available from https://www.unlv.edu/sites/default/files/page_files/27/SyllabiContent-MinimumCriteria-2017-2018.doc
- UNLV Data Warehouse/Office of Decision Support. (2018, March 2). *1-year and 2-year retention of fall 2015 full-time, first-time, first-year students*. Las Vegas, NV: University of Nevada, Las Vegas.
- U.S. Department of Education. (2014). Graduation rates of first-time, full-time bachelor's degree-seeking students at 4-year postsecondary institutions, by race/ethnicity, time to completion, sex, and control of institution. In *Digest of Education Statistics, Integrated Postsecondary Education Data System (IPEDS)*. Washington DC: National Center for Education Statistics and Institute of Education Sciences. Available from https://nces.ed.gov/programs/digest/d13/tables/dt13_326.10.asp
- U.S. News & World Report. (2017, September 12). *Campus ethnic diversity, national universities*. Available from <https://www.usnews.com/best-colleges/rankings/national-universities/campus-ethnic-diversity>
- Walton, G. M., & Cohen, G. L. (2011). A brief social-belonging intervention improves academic and health outcomes among minority students. *Science, 331*, 1447–1451.
- Wang, M. C., Haertel, G. D., & Walberg, H. J. (1994). Synthesis of research: What helps students learn? *Educational Leadership, 51*(4), 74–79.
- Winkelmes, M. A. (2013). Transparency in teaching: Faculty share data and improve students' learning. *Liberal Education, 99*(2), 48–55.
- Winkelmes, M. A., Bernacki, M., Butler, J. V., Zochowski, M., Golanics, J., & Harriss Weavil, K. (2016). A teaching intervention that increases underserved college students' success. *Peer Review, 18*(1/2), 31–36.
- Winkelmes, M. A., Calkins, C., & Yu, K. (Forthcoming). Transparent instruction boosts first-year undergraduate students' confidence, belonging and retention. Manuscript in preparation.
- Winkelmes, M. A., Christopher, K., Copeland, D., Gravett, E., LaFleur, J., Palmer, M., ... Yong, D. (n.d.). *TILT Higher Ed examples and resources*. Available from TILTHigherEd.org
- Winkelmes, M. A., Copeland, D. E., Jorgensen, E., Sloat, A., Smedley, A., Pizor, K.,... Jalene, S. (2015). Benefits (some unexpected) of transparent assignment design. *National Teaching and Learning Forum, 24*(4), 4–6.