

Iterative Disposition Assessment With Feedback Loops in Taskstream by Watermark™

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We've all seen the parked police car ahead that is monitoring travel flow and speed. When we see this police vehicle, what do we do? We immediately check our speed and search our memories for the required speed limit in the area to make any adjustment needed. We have engaged in a feedback loop.

A feedback loop is essentially a control system that allows for feedback and adjustment according to the desired output. In human terms, Thomas Goetz (2011), states that the basic premise is simple: "Provide people with information about their actions in real time (or something close to it), then give them an opportunity to change those actions, pushing them toward better behaviors" (p. 130). Goetz identifies four stages of a feedback loop: *evidence*, *relevance*, *consequence*, and *action*. The *evidence stage* involves data that is gathered on both a formal and informal basis and entered into an information system. The *relevance stage* converts the raw data into a usable format, one that has meaning for the individual. The *consequence stage* results in recommendations for future behaviors. Finally, the *action stage* includes decision-making for action or implementation. The more often the feedback loop is run, the more often that small actions approach large changes.

The purpose of this paper is to discuss how teaching dispositions can be documented with Taskstream by Watermark software at different levels in a teacher education program through data-driven and iterative feedback loops that can help teaching candidates understand the importance of those teaching dispositions while supporting the measurement of those standards within accreditation mandates. These feedback loops transform scattered data into a sustainable system that triangulates data from students, mentor teachers, and faculty members, providing evidence, relevance, consequence, and action steps for both teacher candidates and their program.

We define teaching dispositions as behaviors and habits of mind that illustrate and guide the ethical mandates of teaching with the will to facilitate student learning for all students, a key issue in education today. There are multiple definitions and perspectives for defining and assessing teaching dispositions, but we would agree with Schussler et al. (2012) that "teachers' professional identity, the choices teachers make, and teachers' judgments and reflections about teaching practice emanate from their values, beliefs, and sense of professional ethics" (p. 3). In order to measure such teaching dispositions, those values, beliefs, and sense of professional ethics must be translated into measureable behaviors that can be developed

and nurtured through academic and field experiences as well as reflective opportunities about practice. Osguthorpe (2013) asserts that “dispositions should not stop at a list of professional expectations or code of ethics. They must go beyond such expectations and bear directly on programmatic goals, conceptual frameworks, and quality teaching” (p. 21). It follows that programs that wish to assess dispositions must also teach and reflect about them. Central College adopted the Central Teacher Dispositions in 2011 and the InTASC teaching standards in 2012. These standards have been combined and aligned within the “I Understand, I Can, I Am” developmental model (see Figure 1) for candidate assessment. This model reflects the work by William Perry (1970), representing our teacher education candidates’ journeys through four stages of growth — dualism, multiplicity, relativism, and commitment. The InTASC standards are represented through the “I Understand” and “I Can” levels, and the Central College Dispositions are represented through the “I Am” levels. This model guides teacher education candidates through the program in a developmentally appropriate manner, starting with core foundational knowledge and skills related to Iowa state teaching requirements and InTASC Standards (I Understand), followed by implementation of teaching knowledge and skill through clinical field experiences (I Can), and continuous modeling and growing in terms of key dispositions and attitudes of successful teachers (I Am) that are aligned with InTASC Standards.

Figure 1. Central College Standards Developmental Model

I UNDERSTAND...

- learner development and differences (InTASC 1, 2)
- the learning environment (InTASC 3)
- my content (InTASC 4)
- innovative application of content (InTASC 5)
- multiple methods for assessing student learning (InTASC 6)
- planning for instruction and instructional strategies (InTASC 7, 8)
- the legal and ethical responsibilities in education

I CAN...

- model and facilitate the use of effective oral and written communication skills (InTASC 4, 8)
- plan instruction by using knowledge of the content, cross disciplinary skills, individual learner differences, the community, and best practice to meet rigorous learning goals (InTASC 1, 2, 4, 7)
- use differentiated strategies and connect concepts to encourage learners to develop deep understanding of the content (InTASC 4, 5, 8, 10)

- use strategies, resources and technology to enhance critical/creative thinking and problem solving (InTASC 5, 10)
- apply classroom management and motivational strategies to create positive, productive learning environments (InTASC 3)
- make instructional decisions based on multiple methods of assessment (InTASC 6, 9)

I AM...

- professional and ethical
- collaborative (InTASC 10)
- a committed learner (InTASC 4, 5, 7)
- reflective and adaptable (InTASC 6, 8, 9)
- self-directed (InTASC 5, 7)
- a student advocate (InTASC 1, 2, 3)
- a facilitator of learning (InTASC 3, 5)

Teacher education candidates are presented with this model in their introductory courses. Both content and dispositions are assessed at various checkpoints throughout the program by faculty members, practicing teachers, and students' self-reflection. Feedback loops for disposition assessment are completed five times for elementary education candidates and four times for secondary and K-12 education candidates, resulting in multiple opportunities for Central College undergraduates to practice and improve knowledge, skill, and dispositions for teaching within their program experiences.

The framework for feedback loops has provided a clear path for assessing Central College dispositions using Taskstream by Watermark software. The ease of creating and sharing Taskstream by Watermark electronic forms and rubrics have allowed us to contact practicing teachers, tenured faculty, instructors, and adjunct instructors, and then to collate the results.

The *evidence stage* of dispositional feedback loops, or gathering information, was accomplished by first defining the dispositions in terms of observable and measurable behaviors that follow the same developmental progression of "I Understand," "I Can," and "I Am" outlined below (Figure 2). These behaviors were validated by faculty members, K-12 administrators, and cooperating teachers. While practicing teachers were reluctant to rate a teaching candidate's "Professional and Ethical" behaviors, they have had no problem in responding to the observable behaviors defined as professional and ethical. The levels also

mark introductory, admission to the Teacher Education Program, and student teaching “gates” in the program.

Figure 2. Teaching Dispositions as Observable and Measurable Behaviors

Teaching Dispositions at Level 1 – Intro Classes and Block 1 (ELEM) or Intro Classes and BLOCK A (SEED, K-12)

I Am Professional and Ethical: A Teaching Candidate at this level...

Demonstrates a pattern of professional dress, communication and behavior such as promptness, task completion, and honesty.

Maintains confidentiality and honors the needs and best interests of students.

Follows all legal and ethical expectations.

I Am Collaborative: A Teaching Candidate at this level...

Interacts with others in ways that communicates respect.

Engages in open dialogue and shows appropriate regard for the needs, ideas, and experiences of others.

Develops appropriate professional relationships with peers, students, administrators, parents, cooperating teachers, and other professionals.

Accepts personal responsibility as a collaborative group member.

I Am a Committed Learner: A Teaching Candidate at this level...

Demonstrates enthusiasm, commitment, and optimism for the teaching-learning process.

Actively engages in an intellectual and participatory manner.

Takes advantage of multiple learning opportunities in the pursuit of academic and professional goals.

Teaching Disposition at Level 2 – Block 2 & 3 (ELED) and Block B (SEED, K-12), after admission to the Teacher Education Program

I Am Reflective and Adaptive: A Teaching Candidate at this level...

Exhibits an open mind and positive attitude when receiving feedback from others.

Exhibits keen with-it-ness and engagement in human interactions both inside and outside the classroom.

Adapts, adjusts, and modifies practices to meet the needs of others.

Exhibits poise and spirit in difficult situations, enduring stress and maintaining stability in the face of disruptions or challenges.

Uses reflection to generate potential improvements and applies outcomes of reflection to future interactions.

I Am Self-Directed: A Teaching Candidate at this level...

Demonstrates the initiative and a willingness to actively pursue multiple solutions to problems.

Consistently performs above minimum requirements.

Teaching Disposition at the “I Can Implement, I Am” Level – Level 3 (Student Teaching)

I Am a Student Advocate: A Teaching Candidate at this level...

Interacts with students in ways that consider individual differences and life experiences.

Models respect for all people while providing opportunities for students to hear, consider, and discuss varying viewpoints.

Written work, material selection, activity design, and communication reflect a consistent yet fluid understanding of the diversity in student populations.

Acts to reduce personal biases in communication and in designing and evaluating instruction, learning, and behavior.

Promotes awareness, understanding, and acceptance of diversity in students and families both within and outside the classroom environment.

I Am a Facilitator/Leader of Learning: A Teaching Candidate at this level...

Incorporates practices in teaching that reflect appropriate voice, tone, posture, verbal and non-verbal communication.

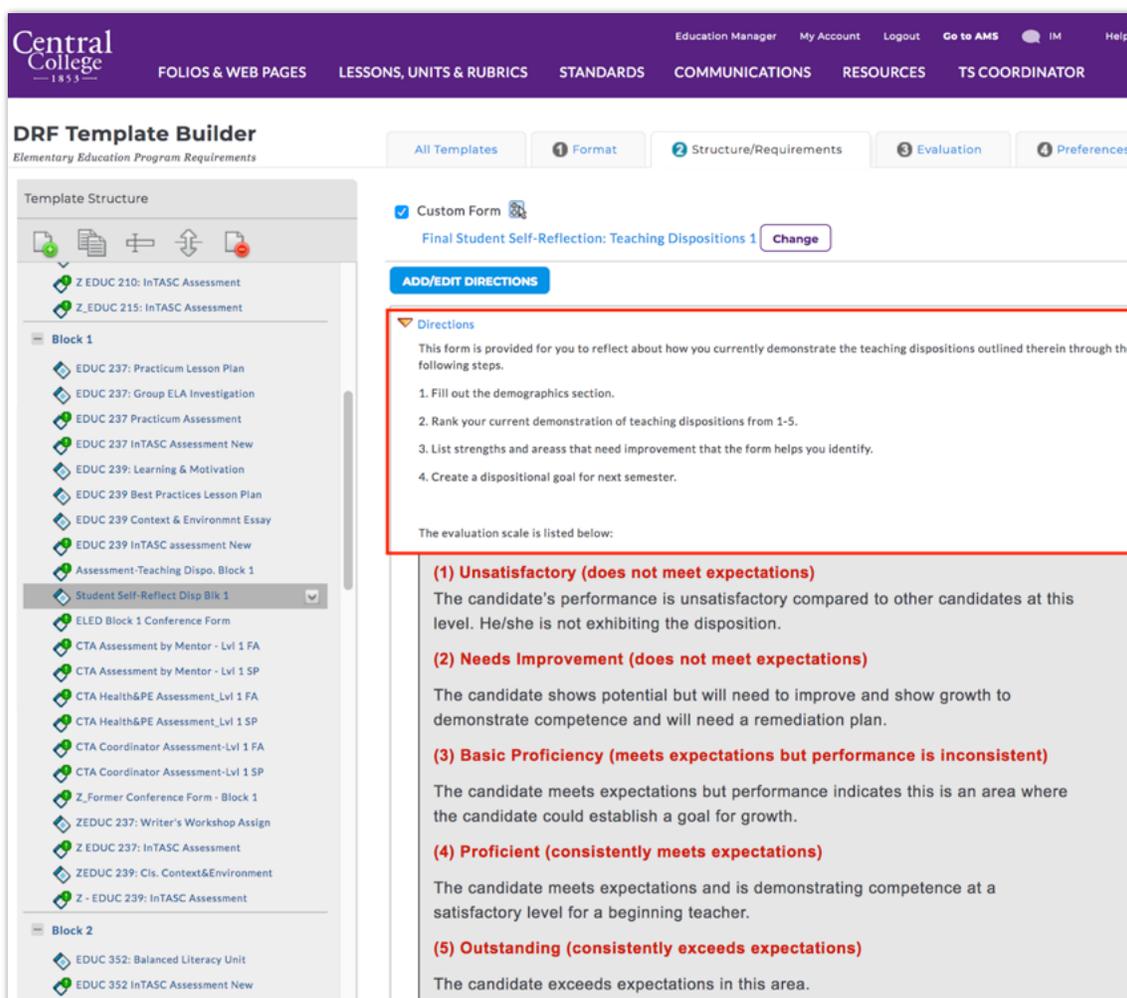
Challenges students to think critically about content and facilitates the extension of learning experiences.

Nurtures high expectations in self, students, and others.

Note that the dispositions move from basic to complex behaviors as the teaching candidate moves through the program and that they are cumulative. That is, assessment forms for beginning students contain only the first level, but after admission to the program, the assessment form contains both first and second levels. Student teaching requires assessment at all three levels. This data is entered into the information system via assessment forms that are Taskstream by Watermark “directed surveys” to faculty members in classes at each level and practicing teachers who are hosting practice experiences at each level that produces database strings for administration and records within each teaching candidate’s account—the **evidence stage**.

While this data offers insights at the individual and program level, the program also asks students to rate themselves, to reflect on those ratings to indicate an analysis of the behaviors at each level, and to make a goal for the next semester to improve. This self-reflection has importance as a teaching tool and its own “habit of mind” for future teachers. Using the directed survey function in Taskstream by Watermark to gather information allows one to rate dispositional behaviors on a 1-5 Likert scale and add comments that are also collected and analyzed. Figure 1 illustrates the section of the education DRF wherein students access the form for self-reflection as a non-submission requirement, and Figure 2 displays the open form.

Figure 1. Student Access to Disposition Form



Form: “Final Student Self-Reflection: Teaching Dispositions 2 Assessment”

Created With: Taskstream by Watermark — Advancing Educational Excellence

* = Response is required

* Teacher Candidate’s Name _____

* Date [month/day/year = 00/00/0000] _____

* Course and Block _____

* I agree to allow data from this form that has been aggregated and not identified by individual to be used for research purposes.

We would like to use your responses for research and program improvement purposes. These responses will not be linked to you personally, but the data collected by program and level. If you have any questions about this item, please ask your instructor now.

Yes No

Teaching Dispositions 2

Please choose a numerical value which best exemplifies your overall performance of the specified characteristic below using the specified evaluation scale.

- (1) Unsatisfactory [does not meet expectations]
The candidate's performance is unsatisfactory compared to other candidates at this level. He/she is not exhibiting the disposition.
- (2) Needs Improvement [does not meet expectations]
The candidate shows potential but will need to improve and show growth to demonstrate competence and will need a remediation plan.
- (3) Basic Proficiency [meets expectations but performance is inconsistent]
The candidate meets expectations but performance indicates this is an area where the candidate could establish a goal for growth.
- (4) Proficient [consistently meets expectations]
The candidate meets expectations and is demonstrating competence at a satisfactory level for a beginning teacher.
- (5) Outstanding [consistently exceeds expectations]
The candidate exceeds expectations in this area.

* Professional and Ethical Characteristics

Response Legend:

1 = Unsatisfactory **2** = Needs Improvement **3** = Basic Proficiency **4** = Proficient **5** = Outstanding

	1	2	3	4	5
Demonstrates a pattern of professional dress, communication and behavior such as promptness, task completion, and honesty.					
Maintains confidentiality and honors the needs and best interests of students.					
Follows all legal and ethical expectations.					

*** Collaborative**

Response Legend:

1 = Unsatisfactory 2 = Needs Improvement 3 = Basic Proficiency 4 = Proficient 5 = Outstanding

	1	2	3	4	5
Interacts with others in ways that communicates respect.					
Engages in open dialogue and shows appropriate regard for the needs, ideas, and experiences of others.					
Develops appropriate professional relationships with peers, students, administrators, parents, cooperating teachers, and other professionals.					
Accepts personal responsibility as a collaborative group member.					

*** Committed Learners**

Response Legend:

1 = Unsatisfactory 2 = Needs Improvement 3 = Basic Proficiency 4 = Proficient 5 = Outstanding

	1	2	3	4	5
Demonstrates enthusiasm, commitment, and optimism for the teaching-learning process.					
Actively engages in an intellectual and participatory manner.					
Takes advantage of multiple learning opportunities in the pursuit of academic and professional goals.					

*** Reflective and Adaptive**

Response Legend:

1 = Unsatisfactory 2 = Needs Improvement 3 = Basic Proficiency 4 = Proficient 5 = Outstanding

	1	2	3	4	5
Exhibits an open-minded and positive attitude when receiving feedback from others.					
Exhibits keen with-it-ness and engagement in human interactions both inside and outside the classroom.					
Adapts, adjusts, and modifies practices to meet the needs of others.					
Exhibits poise and spirit in difficult situations, enduring stress and maintaining stability in the face of disruptions or challenges.					
Uses reflection to generate potential improvements and applies outcomes of reflection to future in					

*** Self-Directed**

Response Legend:

1 = Unsatisfactory 2 = Needs Improvement 3 = Basic Proficiency 4 = Proficient 5 = Outstanding

	1	2	3	4	5
Demonstrates the initiative and a willingness to actively pursue multiple solutions to problems.					
Consistently performs above minimum requirements.					

*** Reflect on your ratings above and list your strengths and areas that need improvement below.**

*** As part of your reflection about teaching dispositions, please enter a dispositional goal for next semester.**

The **relevance stage** of dispositional feedback loops, the converting of raw data into usable format, has been accomplished by Taskstream by Watermark “reports” about the assessment forms that are made available to faculty members and are reported in trend tables as part of the department’s electronic exhibit room. The triangulation of data from faculty members, practicing teachers, and teaching candidates themselves provide a rich source of information about program improvement and dispositional teaching and learning. For example, when all three types of sources indicate that “monitor student learning” is an area for growth, the program can respond immediately. The teaching candidate’s ability to access these assessments in their own account and to profit by professional advice given in the comment sections is also important. Relevance is also felt at regularly scheduled conferences with faculty members and accountability “gates” in that dispositional behaviors are moved from subjective anecdotes to documented evidence. When programs are faced with difficult decisions about teacher candidates’ futures, the documentation of past behaviors is invaluable.

The **consequence stage** of dispositional feedback loops is, hopefully, a generally positive one. However, when teaching candidates receive a rating below a “3” or basic proficiency, a conference is scheduled between class instructor and the teaching candidate to discuss the rating, the specific disposition(s), and the importance to teaching. Programmatically,

teaching candidates must demonstrate all teaching dispositions at a “3” or basic proficiency before being admitted to the Teacher Education Program and student teaching. Once placed, student teachers must succeed at a remediation plan if they have a midterm assessment that indicates a “2” in any specific dispositional item.

Finally, the **action stage** of dispositional feedback loops, including implementation and development of dispositions, involves all areas of the program. Faculty members address disposition levels appropriate to their classes, students are asked to make goals and to reflect on those goals the following semester, and the clinical director of the program stresses the importance of dispositions for success in K-12 settings. Disposition assessments may also reveal a pattern of behavior that needs to be addressed by a teaching candidate (promptness, for example), indicate a specific supervisor or type of placement, or even the need for additional practicum work. Feedback loops can also suggest program areas that need support or further development. Documenting realistic dispositional behaviors can link data gathering to action through informed decision-making for both content and pedagogy.

Implications

The feedback loops utilized by the Central College Education department as part of the sustainable system created through Taskstream by Watermark provide useful information to inform educational practice at this institution and could provide this same type of information for other institutions of higher education. The education program and individual teacher education candidates have been able to make improvements through the assessment of dispositions with iterative feedback loops. A vital feature of these dispositions is their measurability and observability, ranging from simple to more complex behaviors. These dispositions are intentionally built developmentally to create a more coherent program design and conform with the program’s conceptual framework. The valuable data provided through this system of dispositional feedback and improvement is reproducible in other institutions of higher education when the critical factors needed for a successful dispositional feedback loops are considered.

Implications for using iterative feedback loops to assess dispositions include the following critical factors:

1. Dispositions must be defined in measurable and observable behaviors that align with the conceptual framework of an educational program.

2. Feedback loops should be defined to move from basic to complex behaviors in a developmental fashion. Like all feedback, these loops should be supported within the program's curriculum and field experiences.
3. Using feedback loops by necessity requires a management system that is clearly defined and reliable, with direct data collection and management of raw data into reports that yield useful information. Taskstream by Watermark offers such a system.
4. Further research into feedback loops is necessary as the program seeks to produce credible evidence for continual feedback and improvement. For example, extension of this study to include longitudinal studies of alumni and their employers in their first five years of teaching could further inform the program by tracking growth and maintenance of dispositional qualities for graduates.
5. Student self-reflections can also become an important resource for further qualitative study of individual growth through self-reflection at each gateway within a program.

The information produced through disposition feedback loops has allowed the triangulation of data from faculty members, practicing teachers, and teaching candidates to form a rich source of data that identifies both strengths and areas of needed growth at Central College. The four stages of the feedback loop, the functionality of the Taskstream by Watermark survey, data management, and reporting tools, along with the developmental design of student dispositions, create a comprehensive and sustainable system for students' responsive professional practice and programs' continuous improvement.

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