Perspective Transformation: A Mechanism to Assist in the Acceptance of Contemporary Education Reform in Athletic Training

Kimberly S. Peer, EdD, ATC, FNATA School of Health Sciences, Kent State University, OH

Context: Athletic training education is experiencing major reform. As professionals consider the implications of these initiatives, the perspective transformation approach to change processes and future impact provides a viable model for all constituents.

Objectives: Transformative learning is used as a construct for framing perspective transformation. The purposes of this commentary are to contextualize athletic training education reform through perspective transformation as a mechanism for understanding and to facilitate acceptance of the transition process through the use of learning theory. Proactive encouragement for stakeholders uses transformative perspectives to create critical dialogue, cultural shifts, and behavioral changes that are inclusive, reciprocal, and broad focused.

Background: Perspective transformation theory encourages critical reflection on personal bias, fears and assumptions, and understanding to promote critical growth. Through a 10-step process, perceptual shifts and ongoing dialogue create a culture for transformative learning.

Synthesis: Perspective transformation theory provides a strategy for athletic training education programs across the country to embrace change and create meaning from the disorienting dilemma of considering the impact of the educational directive on their programs and students and the profession as a whole.

Results: Ongoing dialogue and inclusive perspectives will help reorient educational programs while protecting the future of the profession.

Recommendation(s): Dissonance within a profession creates animosity and divides stakeholders. Providing encouragement and specific mechanisms for dealing with disorienting dilemmas helps adult learners realize their assumptions and how they impact their perspectives on change initiatives.

Conclusion(s): As a widely supported construct, perspective transformation provides a viable framework for addressing the emerging dissonance and uncertainty associated with educational reform in athletic training. Despite previously surviving tremendous change in athletic training education, this theory provides insights into resolving new fears and creates perspective transformation within the profession.

Key Words: Transformative learning, critical reflection, educational theory, educational change

Dr Peer is currently Associate Professor in the School of Health Sciences at Kent State University. Please address all correspondence to Kimberly S. Peer, EdD, ATC, FNATA, School of Health Sciences, Kent State University, 350 Midway Drive, Room 266B MACC Annex, Kent, Ohio 44242. kpeer@kent.edu.

Full Citation:

Peer KS. Perspective transformation: a mechanism to assist in the acceptance of contemporary education reform in athletic training. *Athl Train Educ J.* 2017;12(2):73–80.

Kimberly S. Peer, EdD, ATC, FNATA

As human beings, we attempt to make sense of events so that we can explain to ourselves what we have experienced and so that we will be able to predict what will result from our future actions. We try to connect cause and effect, but that is not easy because of the almost infinite number of variables involved in human behavior.^{1(p1)}

Athletic training educational reform has prompted considerable dialogue as professionals attempt to make sense of evolving events, such as the release of the new Commission on Accreditation of Athletic Training Education (CAATE) standards.^{2,3} Further, as educators, administrators, and practitioners grapple with the impending change, predictions regarding the potential impact on the profession have created anxiety within the profession. This landmark reform movement will impact athletic training as a profession for decades, including those professional programs which had longstanding success but cannot meet the newly formulated standards set forth for the new degree level. As the reform initiative continues to evolve, connecting causes that precipitated this reform with the predicted widespread effects continues to create a sense of dissonance within the profession.

Humans, by nature, are incredibly resistant to change. This is particularly true when considerable change has dominated a profession's historical evolution. Athletic trainers have experienced educational reform initiatives for decades, resulting in a sense of trepidation as yet another change initiative drives the future of the profession. This conceptual commentary encourages athletic trainers to contemplate the change process, not structurally, but fundamentally, and proposes a philosophical approach for embracing change and transformation. The great Dr Martin Luther King, Jr provided rich perspectives for future generations. Of particular relevance, in his speech "I See The Promised Land,"⁴ Dr King contends, "I know somehow, that only when it is dark enough can you see the stars."4(p410) Dr King reflects on how confusion and dissonance can bring forward incredible change and illumination. Although events may seem uncomfortable or negative at the time, in retrospect, perspective transformation⁵ through transformative learning theory, $^{5-10}$ may reveal positive results. These transformative approaches are anchored in challenging assumptions, questioning ways of knowing, and critically evaluating alternative perspectives in order to bring about a broader, more inclusive perspective.¹¹

Inherent in transformation and illuminated in transformation theory, a disorienting dilemma is needed to stimulate change.^{5–11} Clearly, athletic training as a profession is undergoing another significant change. In 2015, the Strategic Alliance announced that, by the year 2022, all professional programs must be taught at the master's degree level.³ This announcement was precipitated by considerable discussion anticipating how this change will impact the future of the profession. In the midst of this change, professional programs and the profession as a whole are experiencing the disorienting dilemma. In educational theory, this disorienting dilemma is

essential to create perspective transformation by challenging how and why underlying assumptions impact our perception and understanding of events.⁶ Therefore, the purposes of this commentary are threefold. First, the construct of transformative learning is discussed to provide a framework for perspective transformation. Second, parallels specific to educational reform in professional athletic training programs are presented for consideration. Third, a call for action to broaden and transform our perspectives through critical dialogue, cultural shifts, and behavioral change are presented to maximize and embrace opportunities for the athletic training profession.

PERSPECTIVE TRANSFORMATION

Transformative learning emerged in the late 1970s as an evolutionary outcome of Mezirow's model of perspective transformation.^{5–10} Perspective transformation, an adult learning theory, addresses perspective change by challenging the learner to identify that historical experiences and beliefs may be limiting personal growth and relationships. According to his sentinel work, Mezirow contends that, if culture permits, we move away from uncritical and rigid relationships and toward more inclusive, integrative perspectives.⁵ By reevaluating and reassessing the structure of our assumptions and expectations, we can reframe and reconceptualize our thinking.¹²

As a construct of perspective transformation theory, transformative learning theory is defined as "the process by which we transform problematic frames of reference (mindset, habits of the mind, meaning perspectives) and sets of assumption and expectation to make them more inclusive, discriminating, open, reflective and emotionally able to change."12(p92) With transformation, mindsets change and assumptions are dispelled through open, reflective dialogue. Although apparently simple, perspective transformation is quite challenging. This process consists of complex and varied responses yielding change for some and not for others.¹¹ Clearly, the frame of reference and meaning perspectives impact responses. Frames of reference, by definition, are those cultural structures, including language, that guide meaning by shaping and delimiting our perceptions, beliefs, understandings, and expectations. Frames of reference become programmed and result in shifting from one activity to another with a tendency to reject ideas that do not align with our preconceived notions.¹² All individuals perceive meaning quite differently and have varied expectations in situations which emphasize the role of critical self-reflection and active participation in personal growth.

These personal influences can profoundly cloud perspectives. Considered habits of the mind, these resultant perspectives, anchored in cultural, linguistic, educational, economic, and political points of view, impede the ability of athletic training professionals to view change from a broad perspective, resulting in a can't-see-the-forest-for-the-trees dilemma. Oc-

| Table 1. Mezirow's ^{5–10,12} 10 Stages of Perspective Transformation with Athletic Training Application | Table 1. | Mezirow's ^{5-10,12} | 10 Stages o | of Perspective | Transformation with | Athletic Training | Application |
|--|----------|------------------------------|-------------|----------------|----------------------------|-------------------|-------------|
|--|----------|------------------------------|-------------|----------------|----------------------------|-------------------|-------------|

| Mezirow's Stages | Mezirow's Themes and Precipitating Athletic Training Event | Athletic Training Application |
|--|---|--|
| A disorienting dilemma | Educational reform | Declaration of degree change |
| A self-examination with feelings of guilt or shame | Critical reflection | Immediate response to the degree change announcement |
| A critical assessment of epistemic, sociocultural, or psychic assumptions | Critical reflection | Programmatic considerations relative to feasibility and impact of the degree change |
| Recognition that one's discontent and the process of transformation are shared and that others have negotiated a similar change | Rational discourse | Open comment periods, town hall, and professional meetings to discuss the changes |
| Exploration of options for new roles, relationships, and actions | Rational discourse | Discovering through dialogue options and potential direction for individual programs and the profession as a whole |
| Planning a course of action | Perspective transformation | Consideration of practical options for reform and creation of a plan (redesign major programs, substantive change, elimination of program) |
| Acquisition of knowledge and skills for implementing one's plan | Perspective transformation | Consideration of newly created standards and curricular content as options for integrating into academic programs and profession as a whole |
| Provisional trying of new roles | Perspective transformation | Creating strategies, policies, and organizational structures to promote the reform processes |
| Building of competence and self- confidence in new roles and relationships | Perspective transformation | Substantively and genuinely reshaping programs and the profession to accept the new roles created through educational reform |
| A reintegration into one's life on the basis of conditions dictated by one's perspective | Transformation | Accepting and promoting the new degree program and implementing processes that facilitate growth of the profession |

curring either in an epochal way, in which a sudden major reorientation is required, or in a cumulative manner, when a progressive sequence of events creates dissonance, changing habits of the mind requires purposeful, deliberate participation.

In addition to the disorienting dilemma, which is considered the first of 10 phases, Mezirow's model presents 9 additional phases of perspective transformation 5-10,12 (Table 1). The overall process for perspective transformation is, as mentioned earlier, anchored in the disorienting dilemma. In this first stage, the disorienting dilemma is considered the catalyst for perspective change facilitating transformative learning.¹¹ The *disorienting dilemma* is defined as "any external event that causes a sense of internal imbalance" and challenges an existing sense of meaning.^{11(p8)} Classically, it is an experience that may initially be perceived as negative and/or stressful, but ultimately sparks positive outcomes. In the introspective second phase, steps are taken to perform self-examination to address the feelings of fear, anger, and other emotions brought forward by the disorienting dilemma. The next phase, critical assessment of assumptions, provides the foundation for reflection and justification of beliefs related

to the dilemma. Recognizing discontent and mutual feelings of transformation should be shared with others, which is the fourth phase of the model. The fifth phase entails the exploration of potential options for new roles, relationships, and actions followed by a purposeful plan for future courses of action. This exploratory phase provides opportunities for constituents involved in the dilemma to consider options and potential outcomes while formulating a plan (Step 6) that is direct and focused. Steps 7 and 8 entail knowledge and skill acquisition for implementation and provisional trials of newly formed roles. Completing the model, mastery of competence and self-confidence in the newly acquired roles (Step 9) concludes with a reintegration into the change process based on the new perspectives that emerged (Step 10).^{5–10,12}

Mezirow¹² acknowledges that his transformative learning theory goes contrary to the contextual frameworks present in critical pedagogy,^{13,14} post-Marxist theory,¹⁵ and postmodern¹⁶ approaches. He does conceptualize this theory as a:

... rational, metacognitive process of reassessing reasons that support problematic meaning perspectives or frames of reference, including those representing such contextual cultural factors as ideology, religion, politics, class, race, gender, and others. It is the process by which adults learn how to think critically for themselves rather than take assumptions supporting a point of view for granted.^{12(p103)}

Supported by constructivist theory,^{17,18} transformative learning culminates in the ability and disposition to engage in critical self-reflection and reflective judgement through discourse. This is fundamentally necessary for perspective transformation to occur.

APPLICATIONS TO ATHLETIC TRAINING EDUCATION REFORM

Mezirow's Phases in Action

Applying Mezirow's 10 phases of perspective transformation to athletic training education reform provides the framework to change athletic trainers' and other health care providers' perspectives to facilitate positive, meaningful change.⁵⁻¹⁰ As indicated earlier, athletic training has experienced the proverbial disorienting dilemma. Educational reform is once again driving the profession's future and has truly created a sense of internal imbalance which challenges our sense of meaning relative to the preparation and professional practice of future practitioners. Self-examination occurred prior to the official reform announcement, as members of the Strategic Alliance and constituent groups researched and vetted the decision to change. When the announcement, new standards, and curricular guidelines were released, fear, anger, and various other emotions surfaced in anecdotal comments amongst colleagues, and open forum meetings at conferences erupted with feedback, causing a critical assessment of assumptions about how athletic training education should look and how the educational reform will impact the future. These emerging assumptions have certainly provided a foundation for reflection and justification of personal and professional beliefs amongst constituent groups in athletic training, including but not limited to educators, administrators, clinicians, scholars, employers, and students. Driven by individual perceptions of what we know, a culture of fear of the unknown is emerging. Discontent about the process and shared feelings of transformation have been explored through dialogue in multiple public and private venues, yet anxiety and dissonance continues to grip the profession.

Athletic trainers are raising concerned voices as contemplation of the change brings forth negativity and uncertainty about the future. Embarking on the fifth phase of perspective transformation, many athletic trainers are exploring potential options for new roles, relationships, and actions and creating purposeful strategies, both individually and collectively, for future courses of action. However, considering how the new knowledge and skills will be implemented into these plans has unleashed another wave of uncertainty relative to newly formed professional roles. The introduction of clinical skills that far exceed the qualifications of many current faculty members and an expanded definition of entry-level practice have stretched many professionals beyond their comfort zones. As these new roles emerge, they are neither clearly defined within the existing profession nor the broader health care market, thus creating further dissonance. Athletic training is at the tipping point in this transformation process where perspectives can either be positively or negatively framed and profoundly impact the profession's future. Therefore, we can and must discourage

dissonance, increase confidence, and increase competence across all constituent groups within the profession by obtaining a fresh perspective and taking the time necessary to resolve issues created by our new roles.

This change is not simply about education; it is about the profession as a whole. Until these issues are resolved, the reinvestment by all professionals into the redefined field to create a strong, unified presence in the health care market will not likely occur, thereby limiting our potential and impacting athletic training's role in a highly competitive health care market. Perspective transformation is essential at this critical juncture for the profession. It takes commitment to find a collective voice driven by trust, faith, and transparency. Athletic training is redefining its future, and it is imperative that all constituent groups know that their voices are valuable and for them to fully participate in the transformation process.

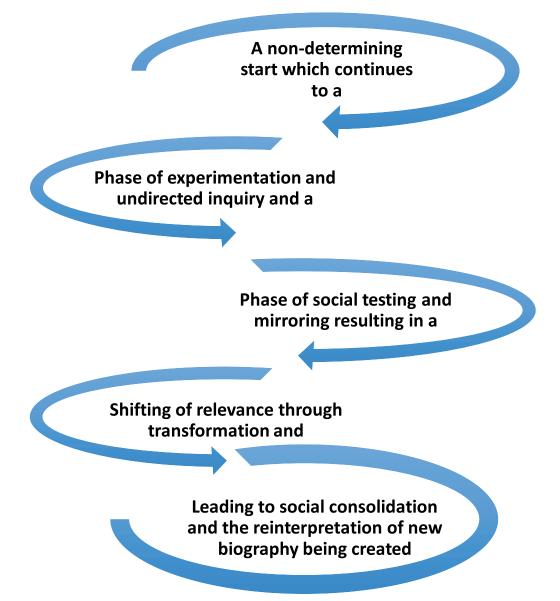
Nohl's Model: Engaging in Actual Transformation

As perspective transformation progresses, challenges will emerge, and continued dialogue will be needed. It is through the integration of a complete transformation process that perspectives and their reflective behaviors truly change. According to Nohl's model, actual transformation involves 5 phases beginning with:

 \dots (1) a nondetermining start and continues with (2) a phase of experimentation and undirected inquiry and a (3) phase of social testing and mirroring. Transformation requires the (4) shifting of relevance, and, finally, leads to (5) social consolidation and the reinterpretation of new biography being created^{19(p39)} (Figure).

Further application of the transformation process to athletic training education change can be revealed by applying these 5 steps. The nondetermining start occurs when a "novelty, neither anticipated nor planned, breaks into life."19(p39) The nondetermining start occurred when the CAATE announced a transition to the master's degree as the required entry-level professional degree. Although somewhat anticipated due to ongoing discussions over the past half-decade, it truly presented a novelty that had profound impact on the profession as a whole. Not only are entry-level programs evaluating the feasibility and processes associated with this transition, postprofessional degree programs, residencies, and internships are also experiencing a state of flux. The changing complexion of athletic training professional programs has an unanticipated ripple effect on programs far beyond those offering professional degrees.

Subsequently, the phases of experimental and undirected inquiry are emerging. Many athletic training programs are exploring novel ways to transform to align with the degree change mandate. Through experimental and undirected inquiry, programs are evaluating the newly proposed standards and considering how and if these standards can be integrated into their institutional and programmatic mission, vision, and goals. As speculation and fear generate even more questions, additional inquiry occurs amongst peers (undirected), through open comments on proposed standards, town hall meetings at conferences, and direct inquiry through conversations with the CAATE (experimental).



In the third phase of social testing and mirroring, athletic trainers reflect on the proposed transition and attempt to appraise the reactions of others. Truth be told, this social testing in athletic training transformation generates a degree of dissonance. As educators engage in substantive dialogue about the proposed changes, standards, and curricular content, the social testing sometimes becomes misguided and often promotes confusion. Without a broad perspective, a strong understanding of the processes, and a firm belief that the changes have been precipitated by transparent and inclusive consideration, social testing creates more confusion and greater anxiety in those not fundamentally involved in the decision-making processes at the beginning stages. This leaves many individuals to defer to those who had a seat at the table and trust the change initiative direction explicitly. This culture of uncertainty in athletic training education transformation leads to perceptions that ultimately become realities that are difficult to dispel.

As the transformation process progresses, it is essential to enter the phase of shifting relevance. This involves moving from a marginal concept to a focused experience. As more information is released to support and direct the athletic training education transformation process, shifting relevance will occur. As more voices are heard and honored, perspectives will alter and add weight to the change process. This phase of shifting relevance requires active engagement. If professionals are not willing to actively respond through open comments, attend town hall meetings, or contribute to the process, and if organizational leaders do not consider and respond to feedback, perspectives will remain unchanged, and dissonance will persist. It should be noted, however, that even under ideal conditions, when transformation occurs, old habits often continue either unintentionally or casually. In the case of athletic training education reform, these old habits can negatively impact the profession's future. Commitment to perspective transformation as an inclusive process limits old habits from deteriorating the progress made toward change.

Lastly, the phase of social consolidation and reinterpretation of biography allows social relations to formulate and subsequently stabilize new practices. In order to fully embrace

Table 2. Habermas'²¹ Conditions for Reaching Consensus Through Discourse and Athletic Training Applications

| _ | |
|--|--|
| Habermas' Conditions | Athletic Training Examples and Applications |
| Complete and accurate information | Degree change white paper; health care economist report; announcement of degree change |
| No coercion, self-deception, or immobilizing anxiety | Transparency through informative sessions at NATA, CAATE, ATEC, and district meetings and publications |
| Alternative points of view considered and valued | CAATE open comment on standards and curricular content; town hall and open forum at NATA, ATEC, and CAATE meetings |
| Freedom to weigh evidence and assess arguments | CAATE open comment on standards and curricular content; town hall and open forum at NATA, ATEC, and CAATE meetings |
| Awareness of the context of ideas and opportunities for reflection on prior assumptions | Extended time frame for feasibility studies for reflection on programmatic direction and professional implications |
| Opportunities to engage in discourse at various levels | CAATE open comment on standards and curricular content; town hall and open forum at NATA, ATEC, and CAATE meetings; uncertainty exists on final determinants for inclusion on standards and curricular content |
| Opportunities to validate new perspectives and arguments | Concern regarding the ability to impact change after open comment |

Abbreviations: ATEC, Athletic Training Educators' Conference; CAATE, Commission on Accreditation of Athletic Training Education; NATA, National Athletic Trainers' Association.

the new social consolidation, a new perspective must emerge. In athletic training, it is imperative to reach this phase of transformation so that professionals can distance themselves from prior biographies and move boldly toward new horizons. This adaptation involves individual acceptance of the direction in which the profession is moving and owning the transformation collectively as a profession. Having constituent groups continue to negate the decision and struggle to accept the new biography defined by the transformation will harm the future of athletic training as a profession. Therefore, it is critical for social consolidation that individuals prioritize being part of the solution rather than remaining part of the problem and actively promote full evolution of the desired perspective and biography, both as members of the profession and participants in the greater health care market. John Schrader once said, "We have found our enemy, and it is us."^{20(p16)} This prophetic insight from a powerful leader in athletic training encourages athletic trainers to join together to collectively determine the optimal path to professional transformation. As a profession, we must not lose our future potential to a primal fear of change; rather, we should embrace perspective transformation as a powerful strategy to navigate these turbulent waters.

The process of transformative learning involves fundamental changes in "meaning perspective (including) thought, feeling, and will,"^{5(p105)} and these basic tenets are evident in athletic training education reform. Essentially, this theory and preceding frameworks lend insight into the ongoing discussions in the athletic training community relative to educational reform. Of primary relevance are the constructs of instrumental and communicative learning. The work of Habermas²¹ underpins both and provides a springboard for the transformative learning theory. He contends that instrumental learning focuses on controlling and manipulating the environment to improve performance or prediction. Commu-

nicative learning, on the other hand, is anchored in validating the accuracy, intent, qualification, truth, and authenticity of what is being communicated. Distinctly different from instrumental learning, the purpose of communicative learning is to arrive at the best judgement by accessing and understanding "intellectually and empathically, the frame of reference of the other and seek common ground with the widest range of relevant experiences and points of view possible."^{12(p92)} Habermas further contends that, in order to fully participate in discourse leading to consensus, the following conditions must apply:

- 1. Information should be complete and accurate;
- 2. There should be no coercion, distorting self-deception, or immobilizing anxiety;
- 3. Alternative points of view should be empathetic, caring about how others think and feel, and free of judgement;
- 4. Freedom to understand, weigh evidence, and assess arguments objectively must exist;
- 5. Awareness of the context of ideas and opportunities to critically reflect on prior assumptions must evolve;
- 6. Have equal opportunities to engage in the discourse at various levels; and
- 7. Opportunities to validate new perspectives and arguments should be provided.²¹

Athletic training reform can effectively employ these philosophical frameworks to guide the future of this fine profession (Table 2).

The Impact of Reform on Students

A critical element at risk of being lost in the entire transformative process inherent in education reform is how the decisions made by organizations impact, at the most fundamental levels, what educators do to shape the lives of the

students they teach. Much can be learned from the great educator, Jeremiah Conway, in his book The Alchemy of Teaching: The Transformation of Lives,²² which challenges faculty to purposefully reflect on their experiences and decisions to impact student transformation beyond discipline specific mastery. Anchored in the ancient practice of alchemy, which involves the creation of precious gems through the processing of raw metals, Conway challenges educators to perceive education as a transformative process. This conceptual framework promotes deep, critical reflection on how explicit and tacit behaviors and decisions impact the student's overall educational experience. Through a collection of stories and life experiences. Conway describes the integral role faculty play in the process of human transformation. He contends that professionals will become disconnected from the nuances that promote human transformation in educational environments if they do not allow themselves time to reflect on and share past experiences. When disconnecting from the critical role of broader educational transformation, faculty run the risk of diminishing their love of teaching, which ultimately dilutes their impact on student transformation. Athletic training educators can transform their students by providing innovative curricular design, authentic educational experiences, and rich research-based activities that inherently differ between master's degree and bachelor's degree programs.

Conway²² challenges educators to consider the tacit, subtle, and often life-changing behaviors and strategies educators use, and to also reflect upon the profound implications these strategies have on students as end results. Using the critical processes of education, such as listening, questioning, examining, evaluating, and synthesizing, educators create new levels of human awareness. Through these new levels of awareness, educators and policymakers should consider the overall rich impact educational reform has on the student. Only through many voices can all facets of the picture come into focus when looking beyond standards and guidelines. Everyone has a different educational experience, and each individual's value in the reform process must not be underestimated. In the absence of a strong body of athletic training-specific literature to guide this reform movement, these varied perspectives can illuminate the transformation process. Through inclusive consideration of options for the future of the profession, all stakeholders, most importantly the future students in these programs, will be transformed.

CONCLUSIONS: THE PAINTER AND THE CAMERAMAN PERSPECTIVES

Taking the time to creatively and critically evaluate the opportunities and risks associated with this educational reform movement to the master's degree in athletic training allows educators and administrators to transform deeply held perspectives. While a cameraman uses high-powered lenses to expose a subject's finest details in their photographs, a painter, on the other hand, adds individual brush strokes to the canvas, assessing how each contributes to the overall composition before adding more.^{23,24} In order for true perspective transformation to occur and the profession to move forward collectively, careful consideration of how both minute details (photograph) and the larger perspective (painting) impact the overall product is also prudent. This educational reform provides many opportunities for professional programs to reenvision the processes by which they

prepare students to face future challenges, but reform must be done carefully and purposefully to not jeopardize the profession's future.

As presented, a disorienting dilemma creates shifts which promote perspective transformation. Personal discontent, emotional reactions, and continued discussion all impact perspectives.¹¹ Athletic training reform to the master's degree has created discontent both personally and professionally, as institutions consider how or if they will transform. Although not all negative, the discomfort of change challenges contemporary thought and behavior. Without strong input and guidance from a variety of constituents, voices may feel silenced, further perpetuating the air of discontent and potentially distrust.

Proactive involvement in the change process bridles reactive emotional responses²⁵ that potentially limit vision and impede optimal perspective transformation. Perspective transformation is guided by open and transparent dialogue in which all stakeholders have the opportunity to voice their perspectives and concerns. Through dissonance and ongoing dialogue, each constituent resolves the internal and external perspective issues arising from the reform movement and can perceive their input as valued and transformative. Momentum for perspective transformation is driven by reflection, discussion, support from others, and follow up.¹¹ Athletic training education is at a critical crossroads, where the theoretical mechanisms of perspective transformation are both evident and applicable to the reform movement's future ability to address the challenges, frustrations, fears, and excitement being felt within the profession and lead the way to the success.

REFERENCES

- 1. Richlan L, Wentzell GW, Cox MD. Translational research in higher education—from theory to practice and back: a message from the editors. *J Excel Coll Teach*. 2009;20(1):1–4.
- 2. Professional program standards. Commission on Accreditation of Athletic Training Education Web site. http://caate.net/pp-standards/. Accessed July 12, 2016.
- 3. Official statement regarding professional degree change. Board of Certification for the Athletic Trainer Web site. http://bocatc. org/news-publication/media-room/11-boc-news/443-official-statement-regarding-professional-degree-change. Accessed July 12, 2016.
- 4. King ML. I see a promised land (Speech delivered April 3, 1968, Memphis, Tennessee). In: Carson C, Garrow DJ, Gill G, Harding V, Hine DC, eds. *The Eyes on the Prize Civil Rights Reader: Documents, Speeches and Firsthand Accounts from the Black Freedom Struggle, 1954–1990.* New York, NY: Penguin Books; 1991:409–419.
- 5. Mezirow J. Perspective transformation. *Adult Ed Quart.* 1978; 28(2):100–110.
- 6. Mezirow J. *Transformative Dimensions of Adult Learning*. San Francisco, CA: Jossey Bass; 1991.
- 7. Mezirow J. Understanding transformation theory. *Adult Ed Quart*. 1994;44(4):222–232.
- Mezirow J. Contemporary paradigms of learning. Adult Ed Quart. 1996;46(3):158–173.
- 9. Mezirow J. On critical reflection. *Adult Ed Quart*. 1998;48(3): 185–198.

Downloaded from https://prime-pdf-watermark.prime-prod.pubfactory.com/ at 2025-06-17 via free access

- 10. Mezirow J, Cohen A, Cranton P, et al. *Learning as Transformation.* San Francisco, CA: Jossey-Bass; 2000
- Herbers MS, Nelson BM. Using the disorienting dilemma to promote transformative learning. J Excel Coll Teach. 2009;20(1): 5–34.
- 12. Mezirow J. An overview of transformative learning theory. In: Illeris K, ed. *Contemporary Theories of Learning: Learning Theorists. . . in Their Own Words.* New York, NY: Routledge; 2009:90–105.
- 13. Burbules N, Burk R. Critical thinking and critical pedagogy: relations, differences and limits. In: Popkewitz T, Fendler L, eds. *Critical Theories in Education: Changing Terrains of Knowledge and Politics*. New York NY: Routledge; 1999:45–66.
- Blake N, Masschelein J. Critical theory and critical pedagogy. In: Blake N, Smeyers P, Smith R, Standish P, eds. *The Blackwell Guide to the Philosophy of Education*. Oxford, UK: Blackwell Publishing; 2003:38–56.
- 15. Leonardo Z. Critical social theory and transformative knowledge: the functions of criticism in quality education. *Educ Researcher*. 2004;33:11–18.
- Kucukaydin I, Cranton P. Critically questioning the discourse of transformative learning theory. *Adult Ed Quart*. 2013;63(1):43– 56.

- 17. Kegan R. What "form" transforms? In: Mezirow J and Associates. *Learning as Transformation: Critical Perspectives on a Theory in Progress.* San Francisco, CA: Jossey-Bass; 2000:35–70.
- King P, Kitchener K. Developing Reflective Judgment. San Francisco, CA: Jossey-Bass; 1994.
- 19. Nohl AM. Typical phases of transformative learning: a practicebased model. *Adult Ed Quart*. 2015;65(1):35–49.
- 20. Schrader JW. Identity crisis: we have found the enemy and it is us. *NATA News*. 2005;April:16–17.
- 21. Habermas J. *The Theory of Communicative Action: 1. Reason and the Rationalization of Society.* Vol 1. Boston, MA: Beacon Press; 1984.
- 22. Conway J. *The Alchemy of Teaching: The Transformation of Lives*. Boulder, CO: Sentient Publications; 2013.
- 23. Benjamin W. *The Work of Art in an Age of Mechanical Reproduction*. Scottsdale, AZ: Prism Key Press; 2010.
- 24. Frank A. The painter and the cameraman: boundaries in clinical medicine. *Theoretical Med Bioethics*. 2002;23(3):219–232.
- 25. Gould J. Thinking with the heart: provoking emotion as a tool for learning. *J Excel Coll Teach*. 2002;13(1):5–27.