



OPEN ACCESS

EDITED BY
Shaun Murphy,
University of Saskatchewan, Canada

REVIEWED BY
Eliza Pinnegar,
Independent Researcher, Orem, UT,
United States
Mary Frances Rice,
University of New Mexico,
United States
Gayle Curtis,
University of Houston, United States

*CORRESPONDENCE
Chelsea Cole
ccoleasm@gmail.com

SPECIALTY SECTION
This article was submitted to
Teacher Education,
a section of the journal
Frontiers in Education

RECEIVED 05 September 2022
ACCEPTED 04 October 2022
PUBLISHED 02 November 2022

CITATION
Cole C, Hinchcliff E and Carling R
(2022) Reflection as teachers: Our
critical developments.
Front. Educ. 7:1037280.
doi: 10.3389/educ.2022.1037280

COPYRIGHT
© 2022 Cole, Hinchcliff and Carling.
This is an open-access article
distributed under the terms of the
[Creative Commons Attribution License
\(CC BY\)](https://creativecommons.org/licenses/by/4.0/). The use, distribution or
reproduction in other forums is
permitted, provided the original
author(s) and the copyright owner(s)
are credited and that the original
publication in this journal is cited, in
accordance with accepted academic
practice. No use, distribution or
reproduction is permitted which does
not comply with these terms.

Reflection as teachers: Our critical developments

Chelsea Cole^{1*}, Elizabeth Hinchcliff² and Rylee Carling³

¹Teacher Education and Technology, Texas A&M University, College Station, TX, United States, ²Penn State Altoona, Altoona, PA, United States, ³Teacher Education, Brigham Young University, Provo, UT, United States

This study utilized Self-Study of Practice methodology to examine stories of our teacher development to explore the role of reflection in helping us grapple with challenging experiences in our teaching. Through emergent coding and collaborative analysis, we examine how reflection critically impacts the trajectory of practicing teachers. Our stories and subsequent discussion reveal recurring themes that suggest practices, attitudes, and skills reflective teachers implement to improve their understanding of the teacher-self and influence positive student outcomes.

KEYWORDS

reflection, qualitative study, self-study of teaching, practice, critical friends group

Conceptual framework

Teaching is a demanding career that requires a constant juggling act, making resiliency and adaptability critical to teacher survival (Day and Qing, 2009). Reflection plays a critical role in aiding teachers to manage these demands. This self-study uncovers the reflection process of three in-service educators who navigate challenges and new developments to their teaching experience in meaningful, thoughtful, and introspective ways as a possible reflective path for other teachers to follow.

Critical reflection and reflective practice

The notion of reflection as having a critical role in teacher improvement can be traced back to Schön (1983), as his phrase “reflective practitioner” became popularized in teacher education. For the purposes of this study, we follow the example of Russell (2018) in understanding reflective engagement as falling into one of two distinct categories: critical reflection and reflective practice.

Critical reflection is best understood as critical thinking applied to personal experiences. This occurs when practitioners step back from a problem or experience and reflectively ask probing questions to make meaning from specified events. When educators engage in critical reflection, they bridge the gap between theory and practice as they introspectively question, reflect on what they have learned, and implement changes

into their practice (Russell, 2018). By engaging in critical reflectivity, practitioners can become more culturally inclusive (Carrington and Selva, 2010; Durden and Truscott, 2013; Butville et al., 2021), confident in their classroom management and content delivery (Slade et al., 2019), and experience fewer feelings of burnout (Taylor et al., 2021).

While critical reflectivity is a habit that can be continual, most authors argue that engagement in reflective practice is triggered by “unexpected and unpredictable moments of surprise and uncertainty that demand our attention and invite us to reframe our implicit assumptions about practice in search of a new, more promising course of action” (Russell, 2018, p. 13). In other words, reflective practice often rises from disjunction caused by a new experience that conflicts with currently held beliefs, experiences, and understandings (Jarvis, 1987). This kind of reflection, also called reflection in practice (Schön, 1983), invites an individual to reframe their understanding and inspires experimentation.

Identity, emotion, and change

Teacher identity and beliefs play central roles in both critical reflection and reflective practice, because both form the teacher’s framework of understanding from which reflection is held, viewed, and questioned. Recognition from others is a critical ingredient for identity formation (Bullough, 2005), and identities are constantly evolving and regulated by emotions (van der Want et al., 2018). Ergo, unexpected moments that challenge one’s identities tend to demand reflection. When a teacher’s identity standard and a classroom situation do not align, one of the two must be adjusted in order to restore balance (Aronson, 1992; van der Want et al., 2018).

What comes from these episodes of identity-versus-experience dissonance is lasting, meaningful teacher change (Richardson, 1990). Reflection, whether individually driven or school sponsored, becomes a key ingredient in facilitating teachers’ making lasting changes, because it provides teachers with the choice to either take up or reject the implications of a challenging experience (Gregoire, 2003). When practitioners are appropriately educated about reflective practices and given meaningful opportunities to engage in intentional and critical reflection, lasting changes are made in their teaching, and teachers become more effective educators as well as more capable problem solvers (Butville et al., 2021; Taylor et al., 2021). This paper provides an in-depth examination of the reflective practices of three experienced teachers as they engage in self-study of their teaching practices to uncover how both critical reflection and reflection in practice play into their growth as teachers.

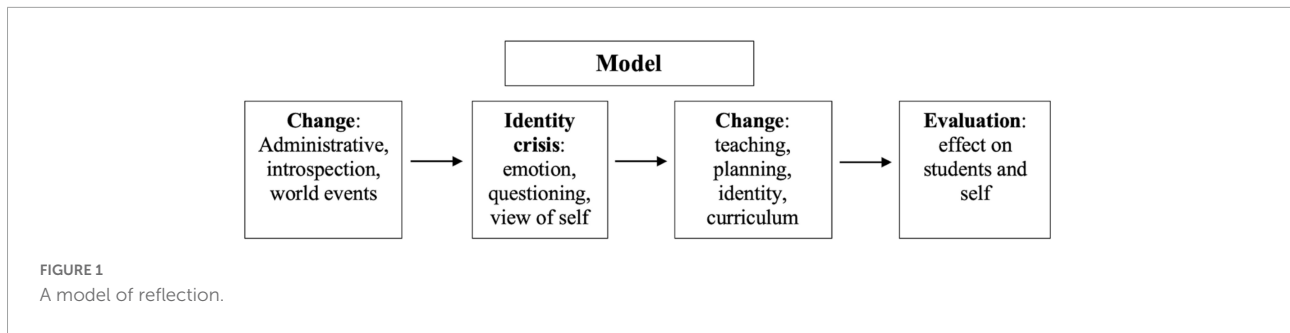
Materials and methods

In this self-study, we explored how reflection during challenging experiences lead to action as a teacher, as well as the learning and growth associated with reflection. From this reflective practice, we collected qualitative data by considering personal experiences in our own teaching careers. Self-generated texts were chosen as they offer “a critical lens through which teacher educators can problematize their practice,” (Tidwell et al., 2009, xiii). These self-generated texts allowed us to present our experiences as teachers, but examine them more closely as researchers to determine how the process of reflection influenced our practice. Each researcher recorded three to four critical experiences responding to the following prompt: How has using reflection helped you to grapple with challenging experiences that led to your action as a teacher?

After recording the critical experiences and sharing them with one another, each researcher engaged in independent emergent coding to identify themes found within. This step was essential to surpass the simple process of reflection and “make them public, thus leading to another series of processes that need to reside outside of the individual” (Loughran and Northfield, 2005, p. 15). As there were no stipulations on how to accomplish the coding, each researcher approached it slightly differently, whether it be highlighting the document and marking findings in the margins, grouping repeated ideas, or fitting the ideas into a process model.

After coding, we met to share the initial data with the other researchers. Collaboration among trusted peers emerges time and again as an essential feature of self-study of teaching practice (Loughran and Northfield, 2005; Samaras, 2011), and was accomplished in this study over Zoom calls. During the initial call, we discussed some of the major findings, as well as clarified and gave further context to the events we had recorded. In addition, we discussed our coding methods and found common findings among different coding techniques. A verbal discussion with our “critical friends” was essential to our process as “engagement with them and their ideas forces the researcher to think more deeply about the research study” (Pinnegar and Hamilton, 2009). The themes discussed and connections made provided valuable data to use later on in the findings portion of the study.

After having our initial discussion and beginning to write about our findings, we determined another discussion would be appropriate. In this discussion, we focused on the difference between critical reflection and reflection in action. In preparation for this discussion, we went through a second round of coding, this time using *a priori* coding, evaluating our written narratives for the ways in which we saw these two types of reflection manifest in our experiences, as well as the results we observed.



Findings

While each researcher followed the same coding process, there remained a breadth of explorable differences between their interpretations, as shown in Figure 1 and Tables 1–3. However, the most interesting findings emerged from the discussion of the similarities, differences, and connections the researchers made together.

First, we noted that attention to internal and external factors of success may have impacted our burnout level as teachers. We found we did not face the same level of burnout in comparison to some of our colleagues and we wondered if our focus on students and reflection served as a buffer against burnout.

TABLE 1 Researcher E.

Stimulus	Grapple	Result
Required	Introspection	Effective educator
New experience	Questioning	Student engagement
Challenge	Realization	Self Confidence
Struggle	Research	Change
Emotion	Beliefs	New Self
Conflict	Decide	
Evolving Self	Trust Self	
Ineffective	Outsource	
	Experiment	
	Teamwork	
	Reflect	

TABLE 2 Researcher C.

Theme
1. Student as purpose and means of deciding whether change is positive.
2. Identity crisis leading to change as a teacher, often by questioning the teacher self
3. Working with others to brainstorm, implement, or prepare for curriculum change
4. Questions or wondering sparking change
5. Emotion leading to change
6. Changing the operational curriculum to include new learning
7. Change linked to requirements

TABLE 3 Researcher R.

Theme
1. reflection as a process in anticipation of or reaction to personal or environmental challenges that may be prompted by outside or internal influences
2. Influences of discomfort, diversity, and school-sponsored reflection that required action, sometimes personal and sometimes in conjunction with others.
3. Success of the reflection was highlighted in student and/or teacher success.

C: I wonder how much of that comes from having a relationship with students, a really positive relationship. . . Maybe teachers that get more burned out are those that focus more on having an expectation of students rather than expectations of themselves.

R: External factors rather than internal ones.

High quality teacher-student relationships increase the level of enjoyment teacher’s feel in the classroom while simultaneously decreasing their frequency of negative emotional responses (Taxer et al., 2019). We viewed these high-quality teacher-student relationships arising from an internal desire, rather than an external expectation.

Researcher R emphasized in her critical experiences that both her teacher identity and her literary identity came into question as she taught. Researcher C noted, “Each of our identities tied to other areas as well. . . and the teacher change comes into the idea that it. . . influences our entire lives.” Bullough (2005) addressed this critical convergence of teacher identity with every other area of a person’s life, saying, “Who we are as teachers emerges from who we are as humans” (p. 238). In our reflection we also found the opposite to be true, that who we are as humans emerges from who we are as teachers.

In Researcher E’s preparation for online learning, reflection was used as a means of elucidating the wisdom and experience of teachers to plan for challenges in advance. Schubert (1991) studied this idea of teacher lore, or the “knowledge, ideas, perspectives, and understandings of teachers” (p. 207). By positioning teachers as experts, teacher lore researchers delve into the dimensions of teacher’s insights and realities (see Colby, 2020). This teacher lore may be revealed through formal

training, team meetings, casual conversations, and peering into other teacher's classrooms.

Finally, we discussed the possibility of using these reflective practices in teacher education programs as a means of preparing teachers to deal with personal and professional difficulties. We noted that some teacher education programs promote teaching students how to find and read research as a possible means of solving the problems teachers encounter in the field. While this may be effective, particularly later on in the careers of teachers, it might also be overwhelming in the face of the responsibilities teachers already face.

Implications

A number of implications arose from the work.

1. Teacher education programs may consider the usefulness of teacher lore accessed through reflection, and incorporate these processes into teacher education programs or field placements. A time to discuss and draw upon lore and research during a class that incorporated both pre-service and in-service teachers may be valuable.
2. Relationships fostered reflection in this study, and it is possible that broadening and advancing the web of teacher relationships can be of benefit to many professionals.
3. As teacher-student relationships ruptured due to the COVID-19 pandemic, we noted that teacher emotions remain deeply affected and may be contributing to the teacher exodus. By reemphasizing the emotional and human aspect of teaching through active and critical reflection, many teachers may be bolstered to remain in the teaching profession.
4. Preparing teachers to engage in both critical and active reflection during a teacher education program may be beneficial. By reflecting on their own experiences with reflection at a school—particularly in mandatory new teacher training programs—the researchers noted when they felt reflection served a purpose they welcomed engagement, a finding supported by [Korthagen and Nuijten \(2022\)](#).
5. [Stolle et al. \(2018\)](#) described critical friends as “someone supporting/coaching the transformation of another’s teaching, or someone supporting the trustworthiness of research methods” (p. 148). The opportunity to become critical friends through writing this self-study project helped each researcher consider their space, the spaces of others, and how these boundaries and openings in their spaces helped new knowledge develop. By helping teachers find and employ these critical friends, insights and opportunities emerge among individuals and groups ([Olan and Edge, 2018](#)).
6. By engaging as critical friends, we embraced our power as teachers. By enacting small, positive changes or

opportunities into our particular sphere of influence, we as teachers have the power to change ourselves, our students, the school or district in which we work, and eventually have an impact on systemic change. Encouraging teachers to recognize and embrace their power as teachers may be a beneficial use of both critical friends and teacher education programs.

Conclusion

This self-study of teaching practice was built through a process of reflection and thoughtful discussion. By writing our stories about when change occurred in our teacher lives through reflection, we realized the import and impact reflection can make individually and collectively on the teaching profession. Engaging as critical friends led to a realization of empowerment that strengthened our individual teacher identities and our desire to make positive impacts in the microcosms of our lives. Teaching in a classroom may be compared to living in a dollhouse, a place where actions may seem canned or too small to impact the larger world. But it is in these very actions of smallness, that these dollhouse universes became places of meaning making and change, spaces where relationships and bonds formed that left a lasting impact far past the plastic packaging so often seen by those unfamiliar with education.

Data availability statement

The original contributions presented in this study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

CC wrote the findings, analysis, and conclusion sections while also organizing and tracking all activity related to the manuscript. EH completed the introduction, conceptual framework, and editing of the references. RC wrote the methodology section and edited the manuscript for grammar and contextual errors. All authors contributed data and participated in the discussion as well as any revisions of the manuscript.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated

organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

References

- Aronson, E. (1992). The return of the repressed: Dissonance theory makes a comeback. *Psychol. Inq.* 3, 303–311. doi: 10.1207/s15327965pli0304_1
- Bullough, R. V. Jr. (2005). Being and becoming a mentor: School-based teacher educators and teacher educator identity. *Teach. Teach. Educ.* 21, 143–155. doi: 10.1016/j.tate.2004.12.002
- Butville, B., Hanrhan, S., and Wolkenhauer, R. (2021). Prepared to take responsibility: Practitioner inquiry for social justice in a professional development school partnership. *Sch. Univ. Partnersh.* 14, 167–190.
- Carrington, S., and Selva, G. (2010). Critical social theory and transformative learning: Evidence in pre-service teachers' service-learning reflection logs. *High. Educ. Res. Dev.* 29, 45–57. doi: 10.1080/07294360903421384
- Colby, H. C. (2020). *Teacher lore concerning teaching English Language Learners in urban schools: A reciprocal determinant analysis*. (Publication No. 8484) [Master's Thesis, Brigham Young University]. Provo, UT: BYU ScholarsArchive.
- Day, C., and Qing, G. (2009). "Teacher emotions: Well being and effectiveness," in *Advances in teacher emotion research*, eds P. Schutz and M. Zembylas (Berlin: Springer), 15–31. doi: 10.1007/978-1-4419-0564-2_2
- Durden, T. R., and Truscott, D. M. (2013). Critical reflectivity and the development of new culturally relevant teachers. *Multicult. Perspect.* 15, 73–80. doi: 10.1080/15210960.2013.781349
- Gregoire, M. (2003). Is it a challenge or a threat? A dual-process model of teachers' cognition and appraisal processes during conceptual change. *Educ. Psychol. Rev.* 15, 147–179. doi: 10.1023/A:1023477131081
- Jarvis, P. (1987). Meaningful and meaningless experience: Towards an analysis of learning from life. *Adult Educ. Q.* 37, 164–172. doi: 10.1177/001848187037003004
- Korthagen, F., and Nuijten, E. (2022). *The power of reflection in teacher education and professional development: Strategies for in-depth teacher learning*. Milton Park: Routledge.
- Loughran, J., and Northfield, J. (2005). "A framework for the development of self-study practice," in *Reconceptualizing teaching practice*, ed. M. Hamilton (Milton Park: Routledge), 22–34.
- Olan, E. L., and Edge, C. (2018). "Critical friends as co-authors: Pushing boundaries and crossing borders together," in *Pushing boundaries and crossing borders: Self-study as a means for researching pedagogy*, eds D. Garbett and A. Ovens (Herstmonceux: S-STEP), 319–325.
- Pinnegar, S., and Hamilton, M. L. (2009). *Self-study of practice as a genre of qualitative research: Theory, methodology, and practice*, Vol. 8. Berlin: Springer Science & Business Media.
- Richardson, V. (1990). Significant and worthwhile change in teaching practice. *Educ. Res.* 19, 10–18. doi: 10.3102/0013189X019007010
- Russell, T. (2018). A teacher educator's lessons learned from reflective practice. *Eur. J. Teach. Educ.* 41, 4–14. doi: 10.1080/02619768.2017.1395852
- Samaras, A. (2011). *Self-study teacher research: Improving your practice through collaborative inquiry*. Thousand Oaks, CA: SAGE Publications.
- Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York, NY: Basic Books.
- Schubert, W. H. (1991). "Teacher lore: A basis for understanding praxis," in *Stories lives tell: Narrative and dialogue in education*, eds C. Witherell and N. Noddings (New York, NY: Teachers College Press), 207–233.
- Slade, M. L., Burnham, T. J., Catalana, S. M., and Waters, T. (2019). The impact of reflective practice on teacher candidates' learning. *Int. J. Sch. Teach. Learn.* 13, 1–8. doi: 10.20429/ijstl.2019.130215
- Stolle, E. P., Frambaugh-Kritzer, C., Freese, A., and Perrson, A. (2018). "What makes a critical friend?: Our journey in understanding this complicated term," in *Pushing boundaries and crossing borders: Self-study as a means for researching pedagogy*, eds D. Garbett and A. Ovens (New Zealand: The University of Auckland), 147–154.
- Taxer, J. L., Becker-Kurz, B., and Frenzel, A. C. (2019). Do quality teacher-student relationships protect teachers from emotional exhaustion? The mediating role of enjoyment and anger. *Soc. Psychol. Educ.* 22, 209–226. doi: 10.1007/s11218-018-9468-4
- Taylor, L. P., Newberry, M., and Clark, S. K. (2021). Patterns and progression of emotional experiences and regulation in the classroom. *Teach. Teach. Educ.* 93:103081. doi: 10.1016/j.tate.2020.103081
- Tidwell, D. L., Heston, M. L., and Fitzgerald, L. M. (2009). *Research methods for the self-study of practice*, Vol. 9. Berlin: Springer, xiii–xxii.
- van der Want, A. C., den Brok, P., Beijaard, D., Brekelmans, M., Claessens, L. C. A., and Pennings, H. J. M. (2018). Changes over time in teachers' interpersonal role identity. *Res. Papers Educ.* 33, 354–374. doi: 10.1080/02671522.2017.1302501