

Examining Reflective Teaching Practices in the Digital Age

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ABSTRACT: Reflective teaching is the process of critically evaluating one's own practices to improve effectiveness. This paper examines reflective teaching concepts from seminal thinkers like Dewey, Schön, and Zeichner and Liston, emphasizing questioning assumptions and willingness to change. It summarizes aspects teachers can reflect on using Richards and Lockhart's framework spanning beliefs, decision-making, roles, lesson structure, classroom interaction, activities, and language use. Research reviewed explores practices in technology-rich contexts, using blogs, integrating technology in training programs, links between attitudes about technology and reflective practices, critical thinking on technology integration resulting from course tasks, and guided reflections on cultural competence. Key findings show that technology-oriented tasks elicit more transformative thinking about integration compared to traditional applications. However, positive attitudes toward technology do not necessarily translate to usage for reflection. There are also gaps between leaders and teachers in sustaining practices, so developing reflective skills is recommended. The paper offers practical suggestions for teachers to leverage video analysis, collaborative documentation, blogging, journaling, annotating plans and student work, surveying students, and analyzing performance data to make reflection a consistent habit focused on improvement.

KEYWORDS: *reflective practice, teaching, EFL, ICT, teacher development, educational technology*

I. INTRODUCTION

Reflective teaching is the process of thinking over one's teaching practices and critically analyzing one's own actions and instructional choices in the classroom. The goal is to evaluate the effectiveness of one's teaching and make improvements. It involves careful consideration of all aspects of teaching, including planning, classroom management, instruction, assessment, and rapport with students. Through reflective practice, teachers think critically about their strengths and weaknesses, successes, and failures, in order to learn from experience.

Reflection can happen before, during, and after instruction. It does not only involve just thinking back; it can guide teaching in the moment. It requires asking probing questions like "What parts of the lesson worked well?", "What could I have done better?", and "What other methods could I try?" Reflection is based on evidence and data collection, examining lesson plans, assignments, and student feedback, and it is meant to lead to making intentional changes and improvements over time as teachers gain self-awareness from the process.

Reflective teaching benefits both new and experienced teachers and supports continuous professional development. It entails consistently looking inward to evaluate one's own role in student learning in order to make thoughtful changes that help students succeed. Engaging in this practice is a mark of effective teaching, and it often leads to greater teacher confidence and innovation.

II. DEFINITIONS AND ELEMENTS OF REFLECTIVE PRACTICE

Dewey defined reflective thought as the active, persistent, and careful consideration of beliefs or knowledge in light of their supporting grounds and implications (Dewey, 1910). Thus, reflective practice requires proactive cognitive engagement (Freidhoff, 2008). Underpinning teachers' reflective activities should be a critical examination of one's values and assumptions (Bryan & Recesso, 2006; Larrivee, 2000). Additionally, reflective practice should happen collaboratively in a community (Freidhoff, 2008; Khourey-Bowers, 2005).

Changed practice as a result of reflective practice comes from confronting assumptions and values when upsets occur (Argyris & Schön, 1974). Moreover, Schon (2017) studied professionals' use of reflection and found that it involves puzzling over a situation, trying to make sense of it, questioning one's assumptions and understandings, and using the new perspectives gained to inform further action. However, Zeichner and Liston (2013) argue while the intellectual steps of reflection can be delineated, reflection should also be viewed

holistically as an overall stance or attitude taken toward problems in teaching. They state it involves intuition, emotion, and passion, and not just a set of techniques.

In terms of what teachers specifically reflect upon, Valli (1997) notes that the possibilities are wide ranging, from student learning to instruction and subject matter. Zeichner and Liston (2013) outline five traditions that represent different paradigms guiding reflection content - academic, social efficiency, developmental, social reconstructionist and generic. Teachers can use these to recognize and expand the lenses they apply in their reflective practice.

Richards and Lockhart (1994) explored reflective teaching in second language classrooms and introduced techniques for teachers to explore their teaching through developing a reflective approach where teachers collect data about their teaching, examine their beliefs and assumptions, and use that information to critically reflect on their teaching practices. They suggested various approaches investigating teaching such as journals, lesson reports, questionnaires, audio/video recording of lessons, observation, and action research. These allow teachers to gather data about various aspects of their teaching.

Richards and Lockhart (1994) purported that reflective teaching should involve the following:

- Exploring teachers' beliefs about issues like language, learning, teaching methods, curriculum, and the teaching profession itself, as beliefs influence teaching practices.
- Understanding learners' beliefs, cognitive styles, preferred learning strategies and how those factors shape students' approach to learning since teachers and learners may have conflicting views.
- Examining teacher decision-making around planning, interactive teaching decisions, and evaluation, reflecting on the thinking underlying actions.
- Considering teacher roles dictated by institutions, teaching philosophies, and personal preferences and how these affect teaching style.
- Looking at the structure of lessons in terms of organization, sequencing, pacing, and closure to check for coherence and to consider momentum.
- Analyzing interaction patterns in classrooms, factors shaping those patterns, and ways teachers can influence interaction.
- Categorizing language learning activities, their purposes, and decisions around selecting and using them effectively.
- Exploring linguistic dimensions of classroom interaction including teacher language modifications, questioning techniques, feedback, and learner language use.

III. RESEARCH ON REFLECTIVE PRACTICE

Benade (2015) conducted a case study on teachers' reflective practices in the context of 21st century learning. Data was gathered through interviews with principals, teachers, and former leaders from three schools at different stages of adopting more futuristic and technology-driven approaches. The analysis focused on comparing the perspectives of school leaders versus teachers on criteria that define effective reflective practice:

- Individually sustaining practices: Leaders promoted reflective writing for accountability and appraisals while teachers viewed writing narrowly for planning purposes.
- Collaborative practices: Leaders and teachers recognized the value of collaboration through online tools, sharing in meetings, and working in modern environments. Leaders wanted teacher discussions to focus on student progress.
- Temporality: Participants viewed reflection as an ongoing daily activity and process before, during, and after teaching.
- Intellectually unsettling: Leaders believed 21st century changes force teachers to reconsider beliefs about teaching, but some teachers resisted modern open-space designs.
- Ethical dimension: There was little explicit attention to ethics from either group.
- Changed practice: All viewed pedagogical change as imperative but due more to external policy and modernization pressures than critical reflection. Leaders described resistance among teachers toward change.

McNair and Galanouli (2002) examined the use of reflective information and communications technology (ICT) portfolios by student teachers during their teacher training program. The goal was to integrate ICT skills development while enhancing teaching ability and student learning. Participants in their study included 110 student teachers across 7 subject areas, and data was gathered via questionnaires, interviews with students and tutors, and analysis of portfolios. They found that 73% of students were satisfied with the ICT training provided. Where dissatisfaction occurred, it was mainly due to tutor ICT skills only being slightly exceeding those of students. Additionally, both tutors and students focused heavily on the portfolio as a product to demonstrate ICT competence rather than as a process of reflection. While 96% of students felt ICT skills would improve their teaching, only 31% used ICT regularly on teaching placements. Barriers included lack of

ICT infrastructure in schools and traditional attitudes to teaching, and where ICT was used, the focus was mainly presentational - e.g., word processing and graphics. There were few examples of using ICT to enable new forms of teaching and learning. McNair and Galanouli (2002) argued that there needs to be greater critical analysis of how ICT can enhance the teaching/learning process, and that requires confident ICT use by tutors to provide models for students, overcoming barriers in schools, and moving from a product view of portfolios to promoting reflective practice on ICT integration.

Chan and Ridgway (2005) explored using blogs (web-based diaries) as a tool to support reflective practice in teacher education. While blogs have potential to help teachers develop skills in technology, communication, and reflection, there are challenges around sustaining engagement and sharing personal reflections openly. In their study, blogs were introduced in an educational technology course for pre-service teachers at the University of Macau, and the students were generally positive about ease of using blogs. They found that blogs facilitated communication between students and the tutor, but not between peers, and students had higher expectations for feedback from the tutor than from peers. Most students did not regularly read peer blogs or post reflective content, rather focusing mainly on tasks set by the tutor. This suggests that blogs did not effectively support student reflection. They concluded that more effort is needed to encourage student participation, provide examples of good practice, and adapt to the predominant Confucian educational culture to make blogs an effective learning tool.

Shoffer (2009) examined the role of preservice teachers' attitudes toward technology in their use of weblogs for voluntary reflective practice during their teacher preparation program. Participants included 9 preservice teachers who maintained public weblogs and participated in interviews over an 8-month period. Participants revealed overall positive attitudes about technology and specifically about using weblogs for reflection; however, the frequency of weblog posts declined over time. Lack of access and time were given as reasons for the decline, but Shoffer argued it related more to whether weblogs were integrated into daily routines and provided connection with others. Those who easily integrated weblogs into daily life or who got interactive responses were more likely to sustain usage over time, regardless of attitudes. Shoffer concluded that positive attitudes toward technology do not necessarily lead to usage, as preferences for ease of use and interactivity are more decisive factors; actual technology usage depends more on how well the technology fits with preservice teachers' preferences and lifestyles when it comes to reflective practice.

Kimmons et al. (2015) examined technology integration coursework for preservice teachers and its impact on their critical thinking about technology use in the classroom. It focused on two research questions:

- 1) Whether certain technology performance tasks lead to preservice teachers thinking about technology in specific ways, i.e., replacement, amplification, or transformation of teaching practices.
- 2) Whether the way preservice teachers think about technology integration impacts their self-assessed competence in using technology.

Data was gathered through surveys and analysis of written reflections from 34 students across 4 course sections. The cloud computing and content management system tasks elicited the most instances of transformative thinking compared to concept mapping and digital storytelling. Additionally, there was no relationship between students' self-assessed competence and whether they thought about technology replacement, amplification, or transformation. Kimmons et al. (2015) argue that teacher training should utilize technologies and tasks supporting transformative integration visions, not just replacement, or amplification. They also recommend selecting technologies and course tasks deliberately to lead to transformative thinking, rather than just skill development.

Slade et al. (2019) examined the impact of reflective practice on teacher candidates enrolled in a course on developmental sciences in the context of poverty. Participants included 186 teacher candidates who wrote reflections on their field experiences using prompts on "What, So What, Now What." The analysis looked at levels of reflection, references to professional teaching standards, and personal connections. They found that 64% of reflections contained personal connections, showing that reflective practice can enhance understanding and attitudes. The reflections provided evidence of growth in areas like knowledge of students, teaching responsibilities, and cultural competence, but only 25% demonstrated higher level critical reflection. Thus, Slade et al. argued that instruction on reflective techniques is needed.

IV. SUGGESTIONS FOR IMPLEMENTING REFLECTIVE PRACTICE WITH TECHNOLOGY

Reflective practice has been a vital part of teaching for over a century, but the way teachers implement it is continually being transformed. In the previous section, research on reflective practice, particularly as it pertains to implementing it with technology, was overviewed. What follows are practical suggestions for how teachers can use technology for reflective practice:

1. Video recording lessons: Video recordings of full lessons allow teachers to see their teaching from an observer's perspective. They gain insights into aspects like lesson pacing, clarity of instruction, classroom

arrangement, student engagement levels, and their own mannerisms. Apps like Swivl automate the recording via a robot, letting teachers see themselves naturally without having to set up tripods, and reviewing multiple videos over time lets teachers analyze their growth in specific competencies as well.

2. Blogging/journaling: Reflective teaching blogs or journals created via platforms like WordPress or Blogger provide space for teachers to honestly process their experience after lessons and over longer periods as well. Unlike verbal reflections, which quickly fade, written reflections crystallize teachers' thinking. Raised issues can be tagged and searched later to spot patterns, and teachers build personal databases of teaching challenges and emerging strategies over a whole career. Furthermore, making blogs public invites commentary from peers locally and globally.

3. Collaborative documents: Google Docs, Padlet, and other web apps allow teachers to post their reflections and get feedback from administrators, instructional coaches, or colleagues. Having others weigh in helps teachers gain new perspectives. Even students can be invited to add questions, reactions, and tips on these platforms. This models transparency and openness to feedback for students as well. Over time, these collaborative journals create institutional memory and evidence of reflective culture that new teachers can learn from.

4. Annotated lesson plans/student work: Using Acrobat, DocHub, or other annotation tools, teachers can reflect on lesson plans and student work samples by adding comments to pinpoint modifications for next time. Annotating fixed documents offers more intimate reflection on what was planned (lesson plans) and produced (student work). Tools like Kami and Scribble also let teachers overlay comments on PDF artifacts to mark critical incidents, gaps between goals and outcomes, and ideas to pursue in the future.

5. Surveys: Quick anonymous student surveys with tools like Google Forms or SurveyMonkey allow teachers to gather student feedback on lessons, activities, or class dynamics for teacher self-reflection. This helps teachers then reconsider assumptions and tune in to the learner experience more. Survey questions such as "Did the lesson activities help you grasp the concepts effectively?" produce actionable data.

6. Analyzing data: Teachers can reflect on data they collect, like formative assessment results, grades, or attendance records, to evaluate student performance and instructional methods using data management platforms. Hard indicators like grades and assessment analytics offer reality checks through learning management dashboards in platforms like Schoology. Beyond perception, these data on student outcomes force teachers to evaluate what works and where more scaffolding is needed. Coupling this with pre-tests and post-tests makes instructional impact transparent.

The key is finding easy, systematic ways to integrate reflection using technology that is readily available to most teachers today. Making reflection a regular habit helps teachers continuously improve.

V. CONCLUSION

Reflective teaching plays a vital role in helping teachers at all levels of experience continuously improve their craft. However, as research shows, there are discrepancies between principals and teachers when it comes to sustaining reflective practices focused on questioning assumptions and changing ingrained habits. Additionally, positive orientations toward using technology do not necessarily translate into usage for reflection.

Targeted efforts are required to develop teachers' skills in critical reflection and help them adopt consistent habits centered on self-analysis. The suggestions shared on integrating technology tools present practical ways for teachers to gather data, document their experiences, collaborate with others, and engage in reflection focused on improvement. By leveraging video, annotations, surveys, and analytics, teachers can confront their own beliefs, decisions, and roles in order to transform their classrooms. Rather than reflection being one more burden, creative integration of technology solutions can seamlessly support the ongoing self-evaluation vital to teachers' growth. The emphasis must remain on reflection leading to positive changes in pedagogy over time, not just navel-gazing. With an inquisitive approach oriented toward action, teachers can continuously refine their practices to maximize outcomes for all students.

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