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# Learning from the Endeavours Made to Actualise Teacher Education and School Frameworks: Annotations to Advance Policies and Practices

**Amanuel Yosief Araya**

Ministry of Education, Asmara, Eritrea.

Email: amanshali3@gmail.com

**Berhane Demoz**

Ministry of Education, Asmara, Eritrea.

Email: anedemoz@gmail.com

**Samson Eskender**

Ministry of Education, Asmara, Eritrea.

Email: samsoneskender@gmail.com

**Khalid Mohammed Idris**

Asmara College of Education

Email: khalididris81@gmail.com

**Kiflay Andemicael**

Ministry of Education, Asmara, Eritrea.

Email: k.andemicael@gmail.com



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## Abstract

Despite the efforts made to reform education in Eritrea, the quality of teachers, which directly originates from an established teacher education programme (TEP), has not ensured the desired outcome in the education practices in Eritrea. A contextual extrapolation has made it clear that learners' learning achievement is low in the country. We uphold the need to enhance teacher professionalism through instituting TEPs that highly focus on developing teacher professional skills and dispositions to actualise certain frameworks. We have voiced our analytic and inductive reasoning to discover situations and suggest better ways of practice and policy considerations. Our study followed a qualitative approach using reflective talks and inductive analysis developed through a longitudinal study. It thoroughly examined the informally introduced and practised model that used collaborative action research (CAR) to try out TEP and school frameworks. It was deduced from the outcomes and processes of the individual and collective engagements and behaviours sensed during the last four years (June 2019 – January 2023) that markedly made various implications to the education system in Eritrea. It urged that teacher educators and schoolteachers should collaborate, engage in research and practice-based actions to develop requisite professional behaviours, attitudes, and values that can help improve practices in continuously changing educational situations. It claimed continuous professional development as an agent of teacher intellectual and moral advancement. We learned that all the processes we went through have powerful messages for every aspect of education, TEP, and school practices in the country. We insist that there is a possibility of doing and relating through CAR in transforming educational practices and ensuring the coherence between reform intentions and their practical implementation.

**Keywords:** Teachers, teacher educators, school practices, professional development, collaborative action research, Eritrea.

## Background and Research Questions

The collaborative action research (CAR) endeavours conducted by in-service teachers (ISTs) in the currently defunct Asmara Community College of Education (ACCE), and the schoolteachers was initiated conceiving that they should develop necessary skills and attitudes to competently enact frameworks and make voices to inform practitioners and policy makers. It was meant to introduce researching one's own practices through making interventions at teacher education programme (TEP) and school settings which were hitherto unfamiliar in the context under study. The entire effort was directed at perceiving the school as a key place of society and education that teachers should understand and change (Fang-tao & Hong-mei, 2014).

The first two authors had completed a three credit-hour semester course entitled 'CAR' offered to ISTs in 2018 in ACCE that is currently instituted as a post graduate programme with the name of Asmara College of Education. Authors 3, 4, and 5 were consistently supportive in the process of

course design, facilitation, and mentoring the ISTs. We, as teacher educators and professional learning communities, are a group of practitioners who share a common interest in a topic and work together towards a common goal (Tack et al., 2021) and hence we were not having only a collection of meetings but a way of life (Hargreaves, 2019). We intensely worked to thoughtfully systematise practices and be *insiders* in this study that was vital to developing learning experiences.

ACCE ISTs, in addition to Natural Science Education and Social Science Education courses, had three common courses including CAR, Educational Technology, and Teaching Practice. CAR was designed to help ISTs explore the process of learning and teaching situations. The enquiries were meant to engage them in discovering their own pedagogy of learning during a semester in TEP. Worthy to mention in this study is that the course 'CAR' enabled the ISTs to address educational situations that they wanted to change eagerly and constructively (Chisaka & Mukabeta, 2013). ISTs had focused on practical solutions to problems (Shumba & Zireva, 2013) as most of the issues were about them (Chisaka, 2013).

The then ISTs had worked hard during the course enactment and were enthusiastic to bring about individual and collective improvements in their respective schools. The process and outcome of the 16 CAR projects ISTs produced with the support and mentorship of the authors in ACCE proved the continuous reconstruction of knowledge, attitude change regarding professional practices, readiness and motivation to initiate actions and change school practices.

The process of CAR had promoted essential professional dialogues (Ado, 2013, in Juma et al., 2017) whereby ISTs remarked that it is teacher educators' (TEs) and education leaders' responsibility to listen to their voices and show the willingness to exemplify working together. Their works proved to be significant in promoting professional learning for all of us and had brought forward critical issues on TEP and school discourses. All the problems investigated, and actions executed upon represented professional repertoire that enlightened our professional experience.

There is an increasing interest in what happens when TEs implement a research-based learning course (Brew & Saunders, 2020). A follow-up study was therefore sketched to understand realities in the school system in Eritrea. The endeavours made in this research were primarily to assess the mechanisms sketched to implement the Eritrean National Curriculum Framework (Ministry of Education of Eritrea (MoE), 2009) and other theories thereby offer evidence-based suggestions for change. The process of this study premeditated to verify its arguments has thus implied several realities pertinent to TEP and school conditions in the country and beyond that we are coveted to share.

With this background, we have reflectively, systematically, and inductively drudged to construct knowledge on what we can learn and suggest. This study has posed the following questions that focused on learning about the basic facts, settings, and concerns, creating a general mental picture of conditions and formulating and bringing questions for future research (Neuman, 2007).

- What can we learn from the endeavours made to transform teachers' professional repertoire and implement the national curriculum through collaborative action research?
- How can our learning and inductiveness help advance policies and practices?

## Research Context

As a nation-state, Eritrea gained its official independence in 1993 after 30-year vicious war against colonizers. Economically, it is a poor country (MoE, 2018, p. viii). Although population census has not been conducted (MoE, 2012a), the population of Eritrea is estimated to be around five million. Education was considered critical to the success of the struggle for independence and accordingly learners were provided with creditable education even in the battlefronts (MoE, 2019). Despite the prevailing socio-economic and political challenges, efforts to ensure transformation through promoting access and equity have been underway during the past three decades. Nevertheless, the quality of education in the country is still low (MoE, 2018). While the Ministry of Education (MoE) endeavoured to realise the general aims of education, the role of TEPs in taking various notable actions have been significant. Nevertheless, TEPs in Eritrea are characterised by a degree of inadequacies and schools of all levels were diametrically influenced by what was happening in the TEPs (MoE, 2018).

Teacher quality in several countries has been the central focus of educational policy (Ariffin et al., 2018), which addressed various crucial areas that need change (Montenegro, 2020). One of the widespread concerns and an increasingly critical issue of the current situation in Eritrean education system is the acute shortage of adequate and qualified teachers. Such challenge has become an impediment to the goal of ensuring the provision of equitable and quality education to all citizens (MoE, 2012b). This study therefore delves into intervention using CAR as an agent of developing teacher professional qualities to implement frameworks and come up with certain annotations to policy and practices that could be relevant to the improvement of the context under study and beyond.

## Theoretical Background

### National curriculum framework

The Eritrean National Curriculum Framework (2009) specifies that the quality and effectiveness of learning in any school system chiefly relies on the quality and effectiveness of teacher education. The framework stresses that teacher education must be designed focusing on the development of the teacher both as a person and as a professional. It reminds that teacher education is a professional preparation, and not a purely academic study, which demands subject matters to be selected and programmes designed accordingly. It also insists that learner centred and interactive pedagogy should be implemented in schools because the more learners have responsibility for their learning, the more they get engaged to achieve particular educational outcomes.

### Pedagogy of TEP

TEPs Pedagogy should be relational, collaborative, capable of teaching students how to explore or research and become interdisciplinary, and innovative (Wilks et al., 2019). Teaching and learning challenges encountered are more of a problem of pedagogy than curriculum and TEs need pedagogy that engage students in reasoning about practice rather than merely telling them about bodies of knowledge or prescribing a set of practices for them (Kennedy, 2016). There are fundamental issues that should be acknowledged and responded to in thoughtful ways by TEs within their TEPs where principles of learning about teaching, among others,

- is enhanced through (student) teacher research;
- requires an emphasis on those learning to teach working closely with their peers;
- requires meaningful relationships between schools, universities, and student teachers;
- is enhanced when the teaching and learning approaches advocated in the programme are modelled by TEs in their own practice (Korthagen et al., 2006, in Loughran, 2014, pp. 273-274).

TEs as in-service learning facilitators support the learning of adult learners who should learn actively by doing rather than through preaching (Fransson et al., 2009). Adult learning should also include a process of reflecting on one's own performance and on the learning process itself (Fransson et al., 2009). TEs' professionalism, knowledge bases, and pedagogies needed to teach teachers are uncertain, complex and difficult to define but becomes visible in practices enacted by TEs in collaboration with student teachers and other colleagues (Vanassche et al., 2019).

## Teacher research and reflection

As in-service facilitators, TEs use research activities to support teachers to “reflect upon their own practice and use their new insight and understandings to improve their practice” (Fransson et al., 2009, p. 80). Research-based knowledge reaffirms the existing practice, provides a frame of understanding, trains the teachers in conducting research activities, and legitimates teachers’ actions (Wahlgren & Aarkrog, 2020). Research-based learning can also challenge teachers to rethink pedagogies they have usually used (Brew & Saunders, 2020). However, it has been comparatively rare for teachers to be research trained (Erixon et al., 2001).

Teacher reflection has also been considered as an indispensable tool for TEs to sustain responsive learning and teaching practices (Etscheidt et al., 2011). However, for reflection to become the basis of teaching, challenges of doing it must be addressed and connections to the literature can be made as way of providing further insight (McDonough & Brandenburg, 2019). Reflective records entail certain notes in relation to teacher own speculations, feelings, and ideas (Pinnegar & Hamilton, 2009). Therefore, teacher education needs to be proactive in generating self-reflective teachers (Brew & Saunders, 2020).

## Collaborative action research

Teachers who worked in a collaborative culture show positive attitudes towards teaching (Flores & Dayb, 2006). The ultimate beneficiaries of working together in schools are the learners (Owen, 2014). CAR as a form of participatory research takes place conjointly with teachers and researchers (Heron, 1996). It increases teacher researchers’ commitment to improving teaching through subduing obstructions such as lack of skills in research methods, valuing teachers as researchers, and researchers as learners, and developing and testing theoretical frameworks (Bruce et al., 2011).

CAR as a model is the best approach for continuous professional development (Altrichter et al., 1993; Mitchell et al., 2009;) that affect transformation through participation in collaborative endeavours (Rogoff, 2003). Teachers as practitioners are expected to be encouraged to reflect critically on their practice to develop new knowledge for effective professional development (Darling-Hammond & McLaughlin, 1995). Professional development is an ongoing process that engage teachers to transform their conceptions and practices and find new ways of meeting the needs and interests of their own contexts through CAR (Castro & Martínez, 2016). A key term in action research is empowerment that help practitioners achieve professional autonomy through professional development (Cohen et al., 2018). As future teachers, ISTs are required to develop intentional, theoretical, and collaborative expertise with others to be effective teachers (Day, 2019).

Collaborative research should be based “on common relevance, shared responsibility and mutual trust and respect for differences” (Leeman et al., 2018, in Wahlgren & Aarkrog, 2020, p. 2).

## Method

We are community of practices who share a common interest, practice, and expertise to contextualise learning through collaboration (Lave & Wenger, 1991). We and our former ISTs participated in a learning community at different levels of competence, starting with a peripheral role and later becoming more central as each of us gained knowledge. Informal models of partnership are believed to be more flexible in structure and implementation (Livingston, 2019) whereby we used CAR as agent of improvement. The process of qualitative research is inductive (Creswell, 2014; Taylor et al., 2016) and we focused on generating meaning, developing concepts, insights, and understandings from patterns in the data rather than testing a theory or hypothesis (Creswell, 2014). This study was meant to explore and understand what the ISTs achieved in the TEP and what they did after they re-entered their schools. It implemented close-up research done to understand the deepness of situations, explain why things are as they are, and see how they might be transformed (Clegg et al., 2016). In such a study, the same teachers would incur a follow up to find out how they are doing (Lodico et al., 2006).

### Processes of the study

The entire process of the study was conceived as a professional learning activity that was expected to be effective when we and the participants trust each other to share their own practices (Tack et al., 2021). Data was collected from two sites - a TEP (where the course CAR was facilitated from February to June 2018 to develop necessary skills of research for collaborative interventions) and a tracer study designed to be conducted from June 2019 to January 2023 in selected regions (N=3) and schools (N=10) with former ISTs to explore and understand what ensued in the TEP and after the ISTs re-joined their respective schools. The process of the study was thought up to be longitudinal to make sense of the prevailing conditions cautiously. The process was hampered during the 2020-21 because of the pandemic but resumed in 2021-22. The professional relationships we created among ourselves and with the former ISTs had enhanced our confidence to facilitate such research process. We genuinely value the *living* lessons we learned that can be clearly observed from the composition and elements of the accounts as we use them for developing arguments that justify our learning.

## Data sources and Participants

The ISTs (N=93) were graduating class whose average age was 34. They had studied a two-year diploma programme at the former ACCE. Fifty percent of ISTs were from South Region of the country, and more than 77 percent were from the Tigrigna (one of the nine ethnic groups in Eritrea). They all were engaged in teaching ranging from one to 26 years in various elementary and middle schools. As qualitative researchers, we found ourselves in close contact with participants to understand the meanings of their experiences (Maharaj, 2016) and conduct the study in dependable agency.

The selection of participants considered variables including sex, age, year of service, region, and sub region. The question of how participants are selected was important for transparency and quality in qualitative approaches (Normann, 2017). We had arranged to meet with 10 teachers who were coveted to reconnoitre the outcome of the study. For that reason, purposive sampling seemed more appropriate for developing the follow-up study. In purposive sampling, sample elements reckoned to be typical or representative were selected from the population (Ary et al., 2010).

We had arranged reflective “talks” (Bullough & Smith, 2016, p. 338) with the participants and among authors at various times and spaces. Accounts had developed from our continuous reflective practices that involved both the write up of organised diaries and the creation of formal and informal discussions with our former ISTs. Diary “as a research tool” (Robson & McCartan, 2016, p. 273) that is excellent source of data (Taylor et al., 2016) recorded events connected to what was done, when and where was the event taking place, what was happening at the time, who was present, what were the data, particular or notable features of the event, context or situation, reflections and observation (Miles & Huberman, 1994). Robson and McCartan (2016) suggested that diary approach need to be combined with a second data collection method for cross-examination to ensure reliability and validity.

We also adopted a questionnaire that included open-ended items, which, among others, dealt with the role of CAR, prevalent school challenges and opportunities while doing CAR, and suggestions on what ought to be done. The questionnaire was devised with the intention of allowing respondents to reflect (using English and Tigrigna - a local language) and express opinions about the factors that promoted or impeded initiatives of CAR in schools. Data using the questionnaire was collected on January 2022. Writing gives the opportunity for more reflection time but as it is cognitively demanding, rich data is challenging to be collected compared to talking (Normann, 2017). Thusly, to

generate more pertinent data, interviews items similar to the questionnaire were braced to better understand the attitudes and emotions of the participants through follow-up questions.

The interviews were conducted with five teachers (former ISTs) and five school leaders on June 2022 which were recorded, transcribed and translated. Critical observation was organised in six elementary and middle schools during the data collection process that gave the likelihood of finding out diverse issues. We were perceptive to the participants, working at a desk to analyse documents, talking with different people, going to meetings with teachers in various schools, and different national and international events (Ferguson, 2016). We, as participants in this research, constructed stories of former ISTs (teachers) through our systematic feedback and insights, review of notes and diaries, and in-depth reading of participants' reports.

**Table 1.** Data instruments, participants, and amount in terms of time

S.N	Source of data	Number of site/participants	Date	Site	Sessions	Average Hours	Total Hours
1	ISTs	One/Nine	February 2018- June 2018	ACCE	45	45 hrs.	45 hrs.
2	Region	Three/Ten	June 2019- January 2023	Region	-	-	-
3	Sub region	Three/Ten	June 2019- January 2023	Sub region	-	-	-
4	Schools	Ten/Ten	June 2019- January 2023	Schools	-	-	-
5	Interviews with school teachers	Ten/Five	June 2022	Schools, MoE, ACE	Five	56 min.	4.66 hrs.
6	Interviews with school leaders	Ten/Five	June 2022	Schools, MoE, ACE	Five	64 min.	5.33 hrs.
7	Reflective discussion with teachers	Ten/Ten	June 2019- January 2023	Schools, MoE, ACE	Ten	59 min.	9.83 hrs.
8	Reflective discussion	Three/Five	February 2018- January 2023	MoE, ACE, City cafes	Five	57 min.	4.75 hrs.

	among authors	e					
9	Authors’ Diaries	Forty-five	February 2018- January 2023	MoE, ACCE, ACE, - Home	-	-	-
10	Questionnaire	Ten/Ten	January 2022	MoE	One	35 min.	35 min.
11	Literature	National and internati onal/68	February 2018- May 2025	MoE, ACCE, ACE, - Home	-	-	-
Tot 11		108	-	13	71	49.52 hrs.	69.92 hrs.

Data collection process required professional qualities including communication, collaboration, and integrity. We assert that individual or subjective aspect of research is at the same time social and objective because the individual is a socio-cultural being with individual experiences that are relatable, social, generalisable, and theoretical (Rådesjö, 2017).

### Data analysis

One method of organising the analysis was through the research questions (Cohen et al., 2007). The analytic process had carefully followed steps (see Normann, 2017) whereby we analysed and interpreted the content of data to find meaning through performing “a storied analysis using the data gathered from each story” (Kramp, 2004, p. 120) illuminated by participants. Content analysis as a process of summarising and reporting the main content of the data and their messages (Cohen et al., 2007) was carried out to gain insights of what is said and done. Interpretation was thus accomplished through the analysis of discourses that focused on language and its meaning (Cohen et al., 2018).

We read and re-read all the data collected from all sources and at different times based on the research questions. We endeavoured to identify the repeated and idiosyncratic ideas, views, and needs stated by participants. Each of us discussed what lessons we gained from the data that reflect contextual realities and what the data imply to practice and policy. We then compared, classified, and condensed the data together using MS Excel 2019 spread sheet that played a role in coding the texts to see peculiarities, patterns, and themes. Pertinent teachers’, school leaders’, and authors’ voices were selected to represent discussions for each theme in line with the literature.

We collaborated to support each other by evoking and identifying themes where the meaning of the lived experience researched were to be found in these themes (Kramp, 2004). We collaboratively worked to review and verify themes and findings (Young & Erickson, 2011) to determine the value, rigour, and trustworthiness of what we did and how we represented what we came to understand (Pinnegar & Hamilton, 2009). Below are therefore four emergent issues that came out of our inductive analysis. They are here arranged as per the level of significance in the local, global, theoretical, and our own experiences. We understood that the relationship that exists among these issues is complex but are reciprocally related.

## Emergent themes and discussion

### **Promoting continuous professional development (CPD) is exigency**

Teachers must be perceived and treated as professionals and their confidence should grow through sustained high-quality CPD (Ovenden-Hope, 2020). Among the firm and recurrent demands of former ISTs was the need for upgrading. In-service learning is often promoted to help teachers and schools realise policies initiated by local, regional, or national authorities (Fransson et al., 2009). A school leader attested,

The capabilities, moral commitment, and intellectual development of teachers can be improved through CPD programmes. Although various contributory modes of CPD have been underway by the Ministry of Education, one of the issues that is currently leading to teacher despondence is lack of opportunity to CPD. (Reflective talk)

Professional development should include exposure to lofty ideas or world views, including not only different theoretical frameworks on education, teaching and becoming a teacher, but also more fundamental ethical, political, and theoretical concepts and positions (Vanassche et al., 2021).

Teacher upgrading programmes in Eritrea are presently ceased which have negatively affected the moral and intellectual commitment of teachers. Majority of the participants in this study demanded CPD opportunities and accentuated the creation of conducive working environment characterised by the provision of benefits to contribute more to the learning of learners and school development. Teaching as a profession should be recreated through a working environment that attract and retain teachers where they are valued, feel supported, motivated, and thereby flourish professionally (Ovenden-Hope, 2020).

This study assured that CPD starts within the school itself and the role of school leadership in such professional development endeavours is necessitated. The former ISTs demanded collaboration, support, and encouragement from school leaders whom they considered as creators of working

environment. Many leaders however engage teachers in collaboration for strategic reasons, and not to empower them through it (Hargreaves, 2019). A teacher participant mentioned, “..... School leaders should shy away from performing tasks that are ordinary. Our experiences insinuate that management practices in schools were not informed by research.” (Questionnaire). This study reminiscent that experience of ACCE leadership was distinct in that it modelled professional standards and was exemplary in playing a leading role in CPD through CAR.

### **Strategizing the link and collaboration between TEPs and the schools is a requisite**

TEs often feel that they lack a frame of reference and a solid theoretical basis for their practice (Lunenberg & Dengerink, 2021). However, it is good to learn from research and practice about the purpose, benefits, and challenges of different partnership models in teacher education (Livingston, 2019). This study found that the informal professional link created among us and with our ISTs was positive where influences, inspirations, and impetus were manifested. A former ISTs stated, “The professional relationship we formed with the TEs was constructive for our moral and intellectual commitment and emotional state.....” (Interview). A few of the participants were able to conduct CAR aimed at improving school conditions that established the support for learners’ learning.

There is a need to identify models, standards, and strategies that ensure the continuum of TEPs’ practices and enhance TEs’ and teachers’ roles. Such strategies are to depict the processes of what, who, when, where, and how the link among TEPs and schools can be established. Carmi and Tamir (2020) contended that developing effective models that require meticulous attention to both content and pedagogy for teacher preparation is an ongoing challenge for TEs. One of the authors concluded, “The initiated actions to verify the arguments of this study have practically made difference on our learning.” (Diary).

Despite the challenges we all faced, the entire process of the CARs witnessed our thoughtfulness as TEs and teachers. A teacher participant argued, “It [CAR] proved that learning is both individual and collaborative, which most significantly ensured the connectedness of TEs and teachers as professionals.” (Questionnaire). Another participant called for, “..... TEPs therefore need to strategize schemes for the development of teacher’s and TEs’ professional network without which the sustainability of quality learning cannot be guaranteed.....” (Interview).

It is beneficial for student teachers to be encouraged to improve their teaching practice through their participation in a learning community (Pow & Lai, 2021). Teacher collaboration positively impacts school quality and hence student teachers should learn to collaborate with their peers where they can help each other in ways more than the exchange of information and materials (Bush

& Grotjohann, 2020). Teachers however collaborated less in a contrived collegiality that is characterised by a formal, predetermined, and fixed in time and space in pre-set meetings through the exercise of administrative power (Hargreaves, 2019).

This study found that there is ecological learning difference between TEPs and school practice. A teacher suggested, “It [collaboration] could be easy for ISTs to organise themselves, get support from TEs, and college leadership. Such opportunities are unavailable in some school environments that challenge those teachers who aspire to introduce and cultivate new culture of practices.” (Interview). The problem is also equally widespread among TEs. However, collaborative model for both formal and informal initiatives has gained support for the professional learning of TEs (Tack et al., 2021) which could equally be significant and practical for teachers. A former ISTs reminisced and confirmed,

The course CAR served as a tool for learning in TEPs and was considered supportive to all courses. Collaboration was realised as a necessary essence in teacher professional learning and development. (Reflected talk)

This study found that prevalent challenges that occurred in the school practices are caused by limited collaborations, which can be counterproductive to quality. One of the authors wrote,

The initial conception of the course CAR at ACCE was to make it as exemplary as possible in schools regarding collaboration, action, and research. During the course facilitation process, our collegial work was made real because of the elevated level of commitment demonstrated. (Diary)

Participants found the process of interaction, communication, and collaboration among us as influential and consequential. The entire learning and teaching processes in the schools however need a learning atmosphere that instigate the spirit of cooperative learning.

The extent to which collaborative communities can operate successfully is dependent on the human and material resources availability (Czerniawski et al., 2021). The outcome of CAR initiatives showed the existence of diversities of all kinds in schools. The differences exist in teacher capabilities, attitudes, school resources made teachers to make use of them as a learning opportunity. An author recommended, “..... However, an environment should be created to accommodate every difference because it is only when we work as community of professionals that we can learn from each other and develop professionally.” (Reflective talk). Similarly, a teacher witnessed, “age, work experiences, region, ethnicity, gender, capability differences at schools are all sources of learning where teachers can find them as opportunities during the process of learning amid challenges.” (Questionnaire).

## **Changing Values, attitudes, and behaviours is binding**

ISTs' determination, bearing to socio-economic pressure, hope, and courage to initiate tasks were essential professional values manifested during the ACCE CAR processes. They found college living conditions and the approaches of learning created by ACCE leadership innovative, conducive, and motivating. Before joining the ACCE, the prevailing socio-economic situations had deterred ISTs from learning authentically. Thus, with all the socio-economic responsibilities they had, ISTs were doing their best to achieve better in learning. An author stated,

The phenomena [at ACCE] led us to conclude that the educational 'values' ISTs exhibited during the learning processes should also be persistent. Such values were interest, patience, and resilience which are essential qualities for learning and teaching a teacher must procured. (Diary)

Lack of encouragement and a negative working climate affects professional development detrimentally (Maaranen et al., 2019). Former ISTs who are currently teaching in remote areas usually under difficult working conditions exhibit such similar professional values. They strive to safeguard their moral and intellectual commitment but demanded continuous encouragement and reward.

A focus of this study was to see the professional influences and inspirations that are important for the attachment participants have toward the teaching profession. We perceived that teacher professionalism as an emotional attachment toward the teaching profession is developed when teachers change attitudes and behaviours. A Former ISTs also witnessed,

The role of CAR in influencing our behaviour and changing attitudes was significant. Prior to some of the actions we executed, our collaborative learning actions were minimal. An unsystematic approach to classroom activities were prevalent and our previous learning practices are uncovered as contributing factors. (Interview)

The concept of learning and researching held by ISTs was initially different from what developed later. Participants however sternly recommended that institutional systems should be supportive to help them make difference in their schools.

## **Developing skills of enquiry, practice-based actions, and problem-solving is precedence**

Research-based learning can challenge teachers to rethink pedagogies they usually use (Brew & Saunders, 2020). Considering enquiry as a perspective stance means generating local knowledge of practice, acknowledging, and considering its relational and contextualised qualities, and interpreting and interrogating the research of others (Vanassche et al., 2021). A teacher proved, "There is a need to develop capabilities to make enquiries into professional practices and solve problems

encountered. Without capabilities, teachers cannot deal with situations and make improvements for better learning achievements.” (Interview). Similarly, a school leader insisted,

TEPs should have courses whose contents are aligned with a pedagogy that allow teachers to discover and sense concepts, and identify gaps in schools individually and collaboratively. Such pedagogic approaches lead to the preferment of ownership toward teacher learning at schools. It also promotes continuing engagement in learning and helps make sense of contents through collaborative enquiries. (Interview).

The outcome of this study indicated that teachers could construct knowledge through enquiry where they can improve and make sense of teaching. Later in their school practices, however, participants demanded the provision of capacity-building opportunities, which is related to the need for strategizing policy schemes of teacher development.

This study has identified pedagogy as a critical area that needs focus and exertion by every agent of learning and teaching in TEP and the schools. The promotion of student-directed, or self-regulated, and active learning both in schools and in teacher education has been an important subject (Lunenberg et al., 2014). Teachers must perpetually stay on top of new pedagogies, teaching approaches, and educational reforms to furnish students to diverging ability levels with complex competencies (Kager et al., 2022). A teacher wrote, “Relevant pedagogies that engage professional teachers to think and act systematically is essential.....” (Questionnaire). Being a ‘professional’ teacher is not only a matter of acquiring qualification and performing the technical knowledge to teach but judging when and how to apply one’s technical skills for what is perceived good (Vanassche et al., 2019). A teacher noted,

Learning approaches and pathways that focus on the practicality of concepts was acknowledged by our CAR results as a vital element of education. It also assured that for effective learning to occur, TEPs’ course practicum in schools need to be reconsidered. (Reflective talk)

Collegial works is an essential pedagogical approach helpful for professional modelling and influences. What is learned in TEPs is not in complete control of TEs and their competences, but it also emerges because of the relationships created with student teachers and colleagues (Vanassche et al., 2021).

Considering assessment as a learning process, this study found that depending on exams limit potential learning developments. This study also found that course design should centre learners’ psycho-social and educational status and efforts need to be directed at nurturing emotional states. Despite the efforts made and achievements gained, this study made it clear that the learning and teaching environment in schools were found to be demanding.

A former ISTs reflected, “ACCE CAR was allowing ISTs to make sense of their own learning and to taste the essences of TEPs’ learning and teaching through becoming critical observers, inquisitive, and decision-makers promotes professional competence.” (Reflective talk). The whole idea was related to professional development that involves experiential workplace learning (Murray et al., 2021). A school leader claimed, “Supporting teachers to see what is happening and why and how situations are prevailing in their learning and teaching dominion is part of the professional development endeavours.” (Interview). Furthermore, an author noticed, “..... Programme fragmentation where the provision of theories at the TEPs and practising them in schools are unsupportive to the professional development of teachers.” (Diary). ISTs’ assessment to each stage of ACCE CAR shows that the ‘course’ reinforced them to critically reflect on their learning and ameliorate the subsisting reality.

## Key findings

The study found various critical issues that enriched our contextual understanding with strong annotations to practice and policy in Eritrea and beyond. It proved that CAR is valuable way of thinking that empower teachers and TEs to think, act, understand, and voice realities affecting practices and situations. It revealed that quality can be ensured through instituting models of collective enterprises and proved the need for policy makers to design strategies to practically link TEPs and the schools through eliminating practice fragmentation and isolation that hamper quality. It made it clear that there should be continuous professional development opportunities to improve teacher quality. It found that efforts should be made by all agents of learning to inculcate indispensable professional values and change existing teacher agency, identity, attitude, and behaviour that are binding elements of professional commitment.

The study also found the evidence that shows the role of leaders in creating positive working environment who can boost teacher moral and best practices. It exposed that there is a need to enhance collaborative work in all areas of learning and teaching to ensure professional synergy for sustained change. It further informed the need for changing the pedagogics of TEPs and schools that focus on instituting practice-based learning and developing skills of enquiry and problem solving instead of focusing on mere dispensation of knowledge.

## Conclusion

Teaching practising and prospective teachers requires unpretentious modelling of critical qualities such as commitment, collaboration, and concretisation of action and improvement-oriented research (Idris et al., 2021). Research endeavours meant to develop abilities to jointly deconstruct already held beliefs and collectively pursue ideas of explanations and solutions (Kager et al., 2022). The outcomes obtained from the experiences we acquired during the CAR practices in a TEP and the schools have various annotations. Such model, although limited in scope and formality, have informed directions of professional learning and teaching. The possibilities are sensed and the ground for such practices can be framed through the responsibilities of TEPs, TEs and other agents.

The outcomes of this study significantly inform that reforms in the TEP and school practices are urgently necessitated. However, the frequent socio-economic, political, and technological changes form powerful influences on how education 'reforms' for teacher education are devised, implemented, and evaluated (Murray et al., 2021). Such reforms include the move towards a more research-based modes of teacher education (Kosnik et al., 2016, in Murray et al., 2021).

Irrespective of the limitations of this study, our endeavours to realise the model designed showed how course facilitation experiences shaped our roles as TEs during the process which continued to have a significant impact on subsequent engagements in teacher education and the school settings. We found evidence that commitment toward continuous teacher reflection, research, and sharing lead to better learning. We also conclude that CAR practices narrow differences and enhance understanding regarding life-long learning.

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