Pedagogical training in Mozambique: the voice of the participants

Tizuko Morchida Kishimoto¹ Lucy Sayuri Ito¹

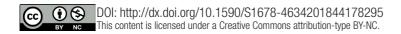
Abstract

The article highlights the voice of health professionals in Mozambique in their account of experiences during a training programme characterised by the praxis approach, reflexive and critical methods, and autonomic and dialogical actions. The impact of this qualification process on the changes they are conducting in their country is investigated through the voice of the participants. The theoretical framework provides an analysis of the innovative changes made by the professionals, based on indicators (intellectual, emotional and sustainability) proposed by Andy Hargreaves. Listening to the professionals subsidises the perspectives of Larrosa and Contreras, which, by giving visibility to each participant's experience, enables discovering what occurs in the qualification process they participate in. The research methodology favours semi-structured interviews as participant statements. The data was collected annually in Maputo and São Paulo in 2012-2015, involving twenty health professionals, three experts and a coordinator, and information in articles produced by the team. 105 statements comprise the set of empirical data that is analysed according to Bardin criteria. The results indicate that the professionals acquired knowledge and skills in diagnosing and solving problems in the Mozambican reality. Reflections about the practice, with autonomy, protagonism, dialogue and respect for the voice of others, show the reflection of the qualification course and the construction of the professional and personal identity that leads to collaborative work in producing innovative changes.

Keywords

Pedagogical training – Voice of the actors – International cooperation – Health in Mozambique.

¹⁻ Universidade de São Paulo, São Paulo, SP, Brasil. Contacts: tmkishim@usp.br; lito@misau.gov.mz



Context of the study

The training deficiency of technical-level professionals in the health area in Mozambique, Africa, motivated the Japanese-Brazilian collaboration in formative processes aiming to improve the quality of services and human resources in that African country.

It is a nation with a population of 26 million² marked by the long tradition of Portuguese colonization that stretched from 1505 to 1975. It became independent after four centuries, but it plunged into an intense and prolonged civil war that lasted 16 years (1977-1992) that left deep marks in the social, health and education areas. Most of its health indicators are below the African, sub-Saharan and world averages. The high rate of infant and maternal mortality is the worst among the seven neighbouring countries, with a ratio of 25 professionals in the health area per 100,000 inhabitants. It is far below the African average of 90 per 100,000 inhabitants and the world average of 230 per 100,000 inhabitants (JICA; MISAU, 2015).

The country has one of the world's worst human development indexes, caused by the lack of professionals to serve the population, which in turn leads to the proliferation of humanitarian actions of non-governmental organizations (NGOs) who, in the absence of an integrated policy in this sector, deploy actions in the health area with a variety of orientations.

The serious situation of the lack of qualified health professionals - a problem not addressed through education - led the Ministry of Health (MISAU) to establish, under its responsibility, a parallel vocational training system at the basic and secondary level, with two-year on average technical courses including nursing, pharmacy, maternal and child nursing, diagnostic medicine and laboratory. They are, however, inefficient, as they have a variety of orientations as a result of NGO collaborations from different countries with contents and practices that reflect other cultures, lack of pedagogical training and a lack of standardised norms and curricula, as well as a tradition of authoritarian intervention. This situation led MISAU to request assistance from the Japan International Cooperation Agency (JICA), which in turn reached out to Brazil, a Portuguese-speaking country, for pedagogical training.

The partners JICA, for its humanitarian profile, and the University of São Paulo Education College (FEUSP) in São Paulo, Brazil, for its experience in training, organised the Pedagogical Training and Technical Skills Training of Health Professionals Programme (ProFORSA). The FEUSP institutionalised this collaboration through an international cooperation agreement between FEUSP and JICA.

ProfORSA: diagnosis, organisation and evaluation

The diagnosis of the situation of the technical courses in Mozambique indicated a gap between public education policy goals and their achievement, a lack of community involvement and trained staff, a lack of teacher profile definition at all levels and specialties, and a teacher education policy with no social sustainability.

²⁻ Data collected on September 11, 2016 at the Instituto Nacional de Estatística de Moçambique (INE), Mozambique

The difficulties were compounded by the coexistence of dozens of training models and curricula with external parameters that disregarded the country's cultural diversity. The lack of pedagogical training made it difficult to draw up study plans with curricula for different levels and defined careers, due to the lack of leadership in the area and a lack of specialists in different areas (education administration, management and supervision, assessment, quality of education, methodologies) (JICA; MISAU, 2015).

The issues raised by the diagnosis guided the organisation of ProFORSA, which was deployed from 2012 to 2015 under the coordination of Lucy Sayuri Ito in Mozambique and Tizuko Morchida Kishimoto in Brazil, with the support of 30 FEUSP professionals and the JICA administrative and financial team, impacting 20 MISAU technicians, 370 full-time teachers, 700 part-time teachers, 1,000 tutors and trainees and 6,000 students from all 11 provinces of Mozambique, totalling 8,090 people.

The training programme's goals were to improve the quality of pedagogical training and human resources in the six priority areas (medical technicians, preventive medicine, nursing, maternal and child nursing, pharmacy and laboratory) by reviewing curricula, manuals and legal documents, producing teaching materials, pedagogical training of teachers, improving the management quality and the external pedagogical supervision, and introducing nationwide exams in the courses (JICA; MISAU, 2015).

The actions for achieving the goals included a 160-hour pedagogical training course aimed at giving a voice to the professionals, 63 short-term courses by Brazilian experts who accompanied the technicians in their daily life as well as training conducted by the Japanese, all in Mozambique, as well as internships in Brazil and Japan.

At FEUSP, immersion in pedagogical issues for three groups of four people each during one semester and three short-term courses for MISAU professionals from 2012 to 2014 included classes in undergraduate courses, tutoring for producing research projects, visits to different health institutions, museums, laboratories and cultural and educational spaces and participation in study groups and seminars, culminating in the production of scientific articles. Training in Japan was complemented with a visit programme to laboratories and training courses in different health areas for 35 people in 2012-2015. Training continued in Mozambique through the end of 2015, with additional support in inserting new teaching methodologies and nationwide assessment and learning evaluation processes.

The final JICA/MISAU report in 2015 contains quantitative studies and synthesises the results of the external evaluation of ProFORSA, indicating the total achievement of goals regarding curricular reorganisation and the revising of manuals, pedagogical training and supervision, as well as monitoring and assessment. High and very high scores were given to all goals, showing a 35,59% increase in human resources in health areas (in 2011 there were 35,501 people, which grew to 48,136 in 2015), as well as doubling the number of mid-level professionals.

The impact of the project was high, as it trained more than 90% of the students in six priority courses, carried out pedagogical training in the 15 Training Institutions (IdFs) and reorganised the MISAU Training Department, improving curricular planning, pedagogical division, and monitoring and evaluation. The key factors leading to the high level of success include: the design and planning of the project, with the collaboration of

FEUSP, in order to ensure action authorship and sustainability; adequacy of financial and technical resources; production and utilisation of materials according to the local culture; and good communication between the stakeholders in Mozambique, Brazil and Japan.

The description of the context of the research and the quantitative evaluation of the experience show ProFORSA's success, but there is no information about each participant's thoughts about the training itself, which justifies the following study.

Research objectives

The article highlights the voice of the participants in the accounts of the professionals' experiences during the training process, as well as the nature of the changes they have brought to their work. It also aims to identify if what they experienced during ProFORSA was reflected in their educational practices.

Theoretical framework

After the end of the Portuguese colonization in 1975, there were changes in educational practices, with a supply of books and activity manuals produced by NGOs that distanced themselves from the Mozambican culture and the needs of each student (MAUAIE; ITO; ARROIO, 2014a). Such resources, when used by teachers within the verbalistic tradition of treating content, created learning difficulties and led to course abandonment. Exclusion of trainers in the planning processes for training, materials production and identifying students' needs, which was found in the *Diagnosis of the Current Situation of Technical Training in Health* carried out in 2012 (NOTIÇO et al., 2014), provided the scenario for ProFORSA's fundaments.

The reality of the exclusion of the trainer's voice led to the formulation of ProFORSA, focusing on the participants' praxis (KEMMIS; SMITH, 2008), which reveals the difficulties, uncertainties and problems of the professionals and becomes essential for planning the training. The new concept of training, of listening to the professional, which is unique because it is different for each participant, connects the past and the present (LARROSA, 1996), through reflection on the practice (SCHÖN, 2002), enabling advancement of knowledge by reviewing past experiences.

Listening to the professionals, highlighting their experience in the training process, can highlight the nature of the changes conducted by the technicians. In this case, the concepts of Hargreaves et al. (2002) indicate the possibility of detailing the specific characteristics of those changes related to the intellectual and emotional work and to the sustainability of those interventions.

The educational experience expressed by the researched subjects' voice also provides important information for discovering "what goes on in their lives as educators" (CONTRERAS, 2010, 249), which is an essential information for continuing the actions, and is essential for planning actions that generate autonomous and sustainable changes.

It is not about making just any change, but the best quality one that makes a difference in the professionals' lives and work. A change (praxis) that leads the professional

to wish to act "educationally is *phronesis*", in the sense of Kemmis and Smith (2008, p.17), implying moral and social responsibility, a personal praxis that is not just an action, but the best alternative for change in each situation. This is what Aristotle calls *phronesis*, a type of education that is learned through experience (KEMMIS; SMITH, 2008).

In view of the professionals' needs, the design and structuring of ProFORSA (JICA; MISAU, 2015) includes a set of theoretical-methodological principles that conduct training processes involving praxis and reflective and critical formats (KEMMIS; SMITH, 2008; SCHÖN, 2002; CARR; KEMMIS, 1986), autonomous and protagonised actions (FREIRE, 1984), within the participatory pedagogy that values dialogic processes (BAKHTIN, 1992), which is not in the "top-down" tradition where the participants' voice is curtailed (OLIVEIRA-FORMOSINHO, 2007). It intends to investigate, through the professionals' narrative, the impact of this training proposal on the life and subsequent experience of the MISAU team.

Research methodology

Although ProFORSA has quantitative studies on the evaluation of the project's different actions, qualitative methodology is used in this research, in which the data collection tools are semi-structured interviews (BOGDAN; BIKLEN, 1992), due to its suitability for listening to the professionals, so that they could freely discuss their experience as educators in training. The oral statements were collected and transcribed by researchers in 2012-2016 in individual meetings, either in Maputo or in São Paulo, after the end of the annual stages of the training process.

In the present study, the empirical sources are the accounts of twenty MISAU professionals (technicians, supervisors), three experts, and of the JICA coordinator, comprising 105 statements (indicated in this article as *Account*, followed by the year) that were selected and analysed based on their adequacy to the subject of the study, according to the indications of Bardin (2004), as well as the team's publications. The statements will be confronted with the theorisations proposed in the theoretical framework regarding the quality of the changes and the concepts and practices acquired in ProFORSA.

Data analysis

The analysis begins with the professionals' perception of their process of change. The first indicator of change (HARGREAVES, 1998) adopted in this study refers to intellectual work, and includes technical knowledge required for innovation. At MISAU, intellectual work is related to specialised pedagogical knowledge and the skills to organise curricula, discuss pedagogies, master innovative teaching methodologies, supervise, plan and evaluate the secondary education system that is under their responsibility.

The first steps for changes in these matters depend on the confrontation of cultural issues between Brazilians and Mozambicans. The embodiment of cultural meanings represents the confrontation of beliefs and practices, with impacts on the ideas, emotions,

experiences and the lives of those involved (HARGREAVES, 1998). In the same language - Portuguese - words and gestures have different meanings, they generate conflicts and require reflections in understanding the symbolisms of body, spoken and written culture (HARGREAVES et al., 2002).

Changes in intellectual work

The first indicator for innovation - the change in intellectual work - will be analysed as of the technicians' arrival in Brazil in 2012 for immersion in pedagogical matters.

Although trained at a higher level, the technicians' difficulty to point out problems and priorities and to give an account of what each one did in their sector can be noted in their statements: "I do not know how to explain what we need"; "we all did the same things"; "we work hard because there are a lot of activities proposed by the NGOs"; "we would run around, without thinking, to perform the actions ordered by our leaders" (Accounts, 2012, 2013). The professionals talk about subservience to the leaders and meeting the demands of the NGOs, evidencing difficulties in identifying problems and priorities, reflecting what Hargreaves et al. (2002) call deficiencies of the intellectual work.

Previous training processes, both at MISAU and at the IdFs, according to testimonials from technicians, reveal the dominant institutional culture: "in the meetings, each team presented the prepared content in a PowerPoint and concluded the meeting, with no further discussion"; "we asked to attend the meetings to understand the problems, but only the leader was invited" (Accounts, 2015, 2016).

There was a confinement of the teams, similar to the eggs-in-a-carton metaphor, each one in his/her own niche, repeating mechanical and isolated operational practices (THURLEY, 2001). This reality of inequality results from the long exclusion of the Mozambican people from the public education system during the colonial period. The right to be enrolled in the official educational system was restricted to the children of Portuguese settlers and assimilated Mozambicans who, by accepting the rules imposed by the Portuguese, had the privilege of attending official schools. What remained for the children of non-assimilated Mozambicans who did not adhere to the Portuguese guidelines was a rudimentary teaching offered by religious missions (CABAÇO, 2007).

The lack of training privileging experience and listening to others (LARROSA, 1996; CONTRERAS, 2010) is amplified by an authoritarian cultural context, a remnant of the colonial period and the civil war for control of the country, where power is in the hands of the privileged-layer Mozambicans, replicating the oppressive system that reduces the technicians' actions to operational tasks.

The technicians' voice reveals difficulties in the working relations with the dominant elite in MISAU's structure, represented by officials, usually doctors who take on the Mozambican society's predominant oppressive culture profile, as can be found in the accounts: "I could not tackle the doctors"; "It was difficult to argue with the doctors, who had more power and training than we did" (Accounts, 2016).

The leadership's power relations and the technicians' submission prevailed in meetings and training in Mozambique, as noted in this report of a JICA member: "It was

very common in attending meetings with the leadership [...] the professionals remained silent, not issuing any opinion and, when 'pushed', they would pass the responsibility on to others" (Account, 2013). This lack of responsibility is due to the lack of knowledge of the functions in each sector. After the training process, the JICA specialist mentioned:

[...] there is currently a "territorial delimitation"; everyone knows the technician responsible for coordinating a given activity, which is a new practice - far from what it used to be, when no one was responsible for anything because of the total lack of structuring in the sector. (Account, 2015).

The strong hierarchisation in relations with subordinates, who remain voiceless and often underestimated in the prevailing culture of oppression, was also observed by the Brazilian coordinator and other experts in meetings in Maputo in 2012. This finding required the Brazilian team's commitment to offer their background in training experiences for deconstructing that practice imposed in the workplace, initially by the Portuguese settlers and later replicated by the Mozambican elite.

Changes in relations of submission produced by centuries of colonisation do not disappear easily. Deconstructing the cultural mark of the pedagogy of oppression (FREIRE, 1987) requires a long period in breaking the links of that cultural chain, which can benefit from the process of listening to others, reducing the time to generate a new culture of equality in interpersonal relations.

In the pedagogical training held in 2013 in Maputo aimed at the 40 technicians and directors, the initial difficulties were caused by the confrontation of beliefs and practices on training that emerged with the new focus on praxis, which demanded changes in evidencing the professionals' voice. The Mozambican tradition, marked by the verbalistic orientation of the trainers and restriction of the word, shaped hardened minds and bodies that did not adjust easily to the dynamic formats proposed by the course. This situation led the professionals to express surprise, discomfort and dissatisfaction in statements such as "we would prefer the teacher to explain everything and not ask everyone to speak", "it was a shock because we are not accustomed to this type of training" (Accounts, 2013), and "the long silence" (Account, 2015) together with the symbolism of the corporal expression that indicated visible discomfort.

Deconstructing the practice of passivity became possible after the first year of training, through the understanding of the importance of praxis and the reflection on everyday problems, which required active and participative education, plus knowledge that brought light to problems identified by the professionals. One professional mentions: "we now use the same methodology in our training" (Account, 2015). The JICA coordinator notes: "now, in meetings, each of them issues clear opinions, always quoting authors and literature, although there is still respect for hierarchical positions, which is still quite strong" (Account, 2015), showing changes in intellectual work, but still maintaining the traditional hierarchy of Mozambican society, which requires a long time to be deconstructed.

Other changes in intellectual work perceived by the managers and employees in the training in Mozambique appeared in the comments: "the team changed its attitude after

it returned from Brazil – they now identify the sector's problems and suggest changes, something that did not happen previously!"; "they [the professionals] explain in a clear way the reasons for not accepting the leader's decision" (Accounts, 2013).

Changes in the intellectual area born of critical reflections and experiences enabled the team, in an autonomous manner, to take on teacher training in the provinces, in a successful process they called "cascade training", which emerges in the accounts: "we were able to perform training in the provinces"; "we use the knowledge we have learned to teach the course" (Accounts, 2015). In these testimonies, the professionals' voice evidences training competences, where autonomy and protagonism stand out.

This experiment was the subject of research by the team (NANLÁ et al., 2013), which obtained a positive score in the assessment report (JICA; MISAU, 2015), confirming the mastery of new knowledge and skills as a tool for intellectual change, evidencing better-quality training for teachers, which is seen as education as *phronesis*, the pursuit of quality ethics.

The technician's vision of text reading in Mozambique and Brazil is another example of intellectual change:

[...] when I attended undergraduate classes here at the Education College, I realised that there was a practice in reading texts that was different from what is done in Mozambique. Here, the students discuss the texts, separating the author's idea, relating it to ideas of other authors, differentiate the main idea from the secondary ones, then make criticism and comments, and not just make summaries like we did there in Mozambique. We need to teach this new way of reading texts to the Mozambique staff. (Account, 2012).

In the confrontation of the participants' voices during discussions about texts, the technician's experience reveals two cultures with different practices: the summary and the critical analysis and interpretation, emphasising that thought cannot be separated from experience (CONTRERAS, 2010). Appropriation of this new experience of reading texts to bring light to everyday problems amplifies the team's analytical and reflexive capacity.

Changes in the intellectual area enabled the five technicians to use the research projects prepared in Brazil to enrol in a master's programme in Mozambique. Other professionals became authors of articles and participated in scientific events, using the acquired knowledge to investigate new curricula, teaching methodologies and pedagogical training. There were also those who received invitations to work in other places, in recognition of their achievements.

The experience acquired in the prolonged internship and in the fruitful tutoring for producing research reports made it possible for the technicians to return to the country, have a collective involvement in conducting changes, and make a scientific account of their empirical observations on the impact of school abandonment due to the lack of pedagogical training (VELASCO et al., 2013), as well as the competency-based nursing curriculum analysis that is being implemented by the Mozambican government (NOTIÇO et al., 2014).

Several investigations have focused on the use of innovative teaching methodologies with new teaching technologies in producing videos, soap operas and comic books

reflecting the local culture, with positive impact in class, leading to quality changes and giving visibility to innovative and creative actions. (MAUAIE; ITO; ARROIO, 2014a; 2014b; ARROIO, 2016; ARROIO; MAUAIE; ITO, 2015; 2016). Other publications dealt with continued training conducted by the professionals themselves - the "cascade training" (MAUAIE; ITO; ARROIO, 2014a; NANLÁ et al., 2013; NOTIÇO et al., 2014).

One can conclude that these facts attest to changes in intellectual work, leading the team to "engage with philosophy, see the underlying coherence, align change with the social mission itself to teach, learn new practices, and integrate them into their own routines [...]" (HARGREAVES et al., 2002, p. 130).

Changes in emotional involvement

The second indicator for the success of educational changes requires more than effort and technical and intellectual mastery, as it is not only a matter of exercising knowledge, skills and abilities for solving problems. It requires the emotional involvement that affects the set of relationships in the work environment. Success and satisfaction depend on the subjects of those actions; "caring for others or providing services is always an emotional practice" (HARGREAVES et al., 2002, p. 132). Listening to others is one way to connect the intellectual to the emotional.

The difficulties in the emotional sphere coming from the professionals' low self-esteem are pointed out by the JICA specialist:

The low self-esteem of colonised populations, such as Africans, which is expressed in concepts such as "all that is white is better", begins to be deconstructed by the awareness that change must start from them, by building each one's identity and also that of the team. (Account, 2015).

The low self-esteem of the Mozambicans stems from the long period of Portuguese colonization that stifles that population's identity, as analysed by Cabaço (2007) in his doctoral thesis, which points to the dualistic nature between the colonist (Portuguese) and the colonised (Mozambicans). In this relationship, there is superiority in the whites and inferiority in the blacks, evidencing racism as the core of social relations, reflected in the idea of white being the best and in maintaining values and behaviours of submission.

Assimilation of the colonised leads to classifying Mozambicans as being inferior and defined as *indigenous* and *non-indigenous*. The indigenous people would be the *blacks*, considered to be devoid of divine revelation and having ways of life and behaviours that are uncharacteristic of the Portuguese culture; and the *non-indigenous* people would be those who assimilated the Portuguese culture and who differ, forming the small elite of Africans who, in exchange for some privileges, liaise with the colonisers and influence the popular masses of the colonised.

Through social exclusion by race, the colonial system incorporated the dominated population in its exploitation system. The children of the land, marginalised from economic and political power, established contradictory processes of submission and revolt. During the civil war, the struggle for power continued, but among the Mozambicans themselves.

Even in the context of a liberated country, they did not cease to be submissive to other forms of coercive governmental control and to coexist with the conflicts generated by power-seeking groups (FRY, 2011).

This long colonial and civil war experience has created different dynamics in the identity processes that persist and are replicated within MISAU and are beginning to be questioned.

Such identity processes resulting from the colonial tendency are reflected in the use of the honorary title of *doctor* to evidence power. This practice changed after the internship at FEUSP, where the technicians noted the equal relationships between doctoral teachers and their students and "even in authorship quotes, where they ask such titles to be withdrawn" (Account, 2015).

If before the training process each one acted as an individual cell, with no communication with others due to the isolation to which they were subjected, another practice came into effect after the new training experiences: that of intellectual work combined with an emotional bond in jointly searching for solutions to effect changes and in the search for the group's identity.

It is not a discussion of the Mozambicans' national identity, nor of identity in Derrida's perspective (1991) that the affirmation of one identity is the suppression of the other one that controls it. Here we are dealing with the construction of a professional identity that emanates from collective actions, requiring the connection of knowledge to emotional action, and from the will to perform collaborative work, when one realises that professional development is not achieved in the absence of personal training (FULLLAN; HARGREAVES, 2001).

This identity carries the emotional element of welcoming each technician, valuing his/her actions, observing and mediating his/her difficulties. It brings out the experience of bonding, of respect for personal choices, of belonging to different groups to perform joint tasks, and of the awareness that any changes depend on themselves and not on outside experts, as occurred in the previous practice.

In this manner, they move away from the pedagogy of oppression (FREIRE, 1987) to become actors in the change processes. The symbiosis between the intellectual and the emotional and the adoption of participatory pedagogy mobilised the team for meetings and for defining reorganisation strategies of MISAU's Initial Training. The professionals' voice referred to the role of emotion in building the new profile of an educator capable of bringing about significant changes: "I was able to make quality changes because I received support when I ran into difficulties"; "it was also because of the affection with which I was welcomed, and this helped", and "you believed that I could effect changes"; "what I learned changed my life and even the relationship with my family" (Accounts, 2014).

Even for the professional who, since her arrival in Brazil, did not express herself at all, evidencing her difficulties, emotional and intellectual support made her personal and professional development possible. After three years, she acquired competencies, began her master's degree, researched and published scientific articles. Today she stands out in the teaching methodologies area and is recognised in the country for her specialised training. When rising through the levels of the professional development process, she becomes more distant from the levels of survival and lack of specific knowledge, to achieve the

degree of specialisation, which includes advancing in a master's programme, publishing articles and possessing specialised knowledge (OLIVEIRA-FORMOSINHO, 1998).

Sustainability

The third indicator for innovative change depends on the continuity of proposal sustainability actions. A pedagogical training of a few days or weeks is not sufficient for mastering knowledge and skills such as the independent use of new teaching technologies. After a practical video production course, when the autonomous production of new work begins, doubts arise as to which additional support is required. Without new support, the practice would be abandoned, and the investment would be lost, generating discouragement and leading to the return to old teaching practices.

Therefore, in addition to the initial course, additional support actions were proposed during the training period, so that the change would ensure what Hargreaves et al. (2002, p.151) call the "generalising character", which can have the same meaning as sustainability. This continuous action enables the conceptual clarity and the technical ability that, in the uncertainties of daily life, drive initiative and flexibility in searching for adaptations in the face of a lack of materials or equipment, creating a continuous adaptive capacity in the face of everyday challenges.

Generally, the pedagogical training courses to which Mozambicans were previously submitted offered only an introduction to the subjects through lectures with slide presentations. The experience to deal with pedagogical problems requires prolonged investment in monitoring the practice, the praxis of constant reflection of the daily doings, using conceptions that give clues to solving problems. This example in the evaluation area is enlightening. According to one of the technicians:

I was placed in charge of the division that monitors and evaluates training, but I had no idea what that meant and what I had to do. After consulting with Ocimar and Erica [experts from Brazil], they helped us to see that the division should be called the Quality Assessment Department [RAQ], and today there is clarity in the division's attributions and especially in our role within the central level in supporting the Provincial IdFs. (Report, 2015).

Although evaluation was the focus of previous courses, lack of clarity about the evaluation of training and of training quality persisted and added to the difficulty in organising a sector to address this issue. Maintaining additional support is an indispensable condition for sustainability in the complex field of evaluation.

Another example of rooted work is quoted by the teacher responsible for introducing a new teaching methodology that substantially changed the verbal practice in Mozambique, creating quality centres for technological materials production:

[...] the support given to the teacher, who had technical skills in using technological resources, turned IdF into a specialised centre for producing videos, [...] this centre could undertake the training of other IdFs. (Account, 2013).

Technological literacy in promoting democratic societies is essential for consuming, producing and utilising technological resources in student training. Video production covers a diversity of themes about different realities, such as lack of drinking water in some locations, and epidemic diseases such as diarrhoea and cholera in others. The videos capture local contexts conveying the community culture, facilitating the understanding of those sanitary and epidemiological situations, and are important tools in classes.

Development of skills for utilising new technologies is essential in health practices; it provides reflections for critical use, offers quality education, and inserts the reality experienced by students and the community into the debate. Factors such as individual barriers, lack of confidence and time, and resistance to change are obstacles that prevent the continuity of producing and utilising such resources (MAUAIE; ITO; ARROIO, 2014a; ARROIO; MAUAIE; ITO, 2016).

Lack of pedagogical training is attested by the teacher's statement: "I had never had any type of training since I graduated in nursing, I need this pedagogical training" (Account, 2014, apud MAUAIE; ITO; ARROIO, 2014b). The use and support of such initiatives to transform the contexts into technological material production centres values the team and creates sustainability in deploying new methodologies, as indicated by the same teacher: "in another IdF, the director participated in the video production course, was involved in all stages, and facilitated materials production for the entire team" (Account, 2013). This is an educational action that includes the Aristotelian *phronesis* for seeking changes that impact the whole institution. Such democratic leadership coming from managers or even from teachers, is essential to leverage and sustain innovation processes (FULLAN: HARGREAVES, 2001).

The initial distrust of the videos' potential as a teaching tool manifested by managers and teachers changed when the impact on the classes and their role were noted as a tool to portray the country's cultural habits in health, to identify community health problems, the practices of witch doctoring and the dialects used in everyday life, facilitating the understanding of the generating contexts of the health problems.

Listening to others and critical reflections on the practice

As a result of listening to others, the inadequate flow of information and lack of communication that characterised the previous work in MISAU changed. An example of pedagogical supervision practice shows the impact on the quality of communication. Previously, supervision was seen as an inspection, where, at the slightest problem, managers of training units were penalised or deprived of their duties. As a result of this practice, "the tendency to hide problems and 'mask' situations prevailed" (Account, 2015).

Changes were observed after discussing the meaning of inspection and pedagogical supervision, following additional support from specialised experts who visited the IdFs together with the technicians, performing listening practices with the professionals. In this process of mentoring in the field, they learned to respect the ideas of others, listening to teachers, identifying problems, receiving suggestions, and bringing together technicians and teachers to discuss results, to jointly create ways to support the IdFs.

The new practice of listening to others (CONTRERAS, 2010; LARROSA, 1996) resulted in "the improvement of the communication flow" that occurred between the MISAU team and the IdF professionals, who can now comment "without fear of punishment" the problems of the institution (Accounts, 2015), implementing dialogic processes (BAKHTIN, 1992). Awareness of the meaning of pedagogical supervision resulting from dialogue with and observation of experts in the field has modified traditional practices, generating sustainability in the actions.

New knowledge and emotional involvement have favoured changes in practices, as evidenced by the statement of a technician, who reflects on her practice in accompanying the teaching methodology specialist in the provinces: "now I understand how to guide teachers. I previously could not understand what teaching methodology was" (Account, 2014). The building of emotional and intellectual ties between the technician and the external expert during training actions at the IdFs generated the confidence to issue comments without fear of punishment or reprimand.

The success in preparing evaluation items enabled not only changes in the work context of the MISAU evaluation team, but also the expansion of this action to other higher education contexts in Mozambique, as mentioned by a JICA specialist:

Professional growth in this area was so great, that the staff of the Evaluation and Quality Division (RAQ): Bambo, Helena, Adélia and Natasha, have already been contacted by other higher education institutions such as the Pedagogical University and the ISCISA (Instituto Superior de Ciência da Saúde) to learn from them the item development process. (Report, 2016).

The complex task of training the team in learning evaluation and external evaluation received additional support from the FEUSP research group of 20 persons. Despite the team's commitment, this issue still requires long investment time for generating deep changes. It is not enough to have validated items or evaluation scores for nationwide exams. They are more effective when the teachers themselves perform reflective practices in collaborative processes, analysing evaluation results. Nationwide assessments require discussing the purposes of their use, whether for educational reforms or the management of school systems and schools (BAUER; ALAVARSE; OLIVEIRA, 2015). This is a long process that requires the use of evaluation results in critical reflections towards changes that are under way (ALAVARSE, 2015), which will be the object of attention in the second stage of ProFORSA.

Evaluation reports (JICA; MISAU, 2015) confirm the information obtained in the participants' reports and indicate the gradual process of distancing from the pedagogy of oppression (FREIRE, 1987) and the practice of obedience. The professionals began to act in a dynamic manner, making suggestions to the leadership for addressing matters related to the demands of the NGOs, proposing norms for organising the sector, curricular revisions, training planning, and evaluations.

The mastery of new knowledge and safety in conducting meetings became visible and was verified by leaders and others (MISAU; JICA,; FEUSP and NGOs), who commented on the critical positions and perception of the problems and their solutions, such as that

of a teacher with respect to curricular changes: "it is not enough to change curricula, it is also necessary to change practices" (Account, 2014).

Reflection on the practice, in a critical manner, enabled understanding democratic supervision as the listening to others in the context of the school, generating changes capable of altering the quality of the pedagogical work, as can be seen in this professional's testimony:

I was not in the habit of listening to the teachers' suggestions and doubts, I just used to go to the provinces and trained... we did not know that we were just doing an inspection and, when I saw Mauro [a Brazilian supervisory specialist] listening to the teachers' criticism and suggestions at the Institutes and then guiding them, that changed my practice. (Account, 2014).

The account brings a reconstructed memory of the past (LARROSA, 1996) through reflection on previous practices (SCHÖN, 2002), when one realizes that authoritarian manners of management - such as inspection - only perform control and add nothing (FULLAN; HARGREAVES, 2001), while dialogue with others (BAKHTIN, 1992) brings new experiences. Confrontation of beliefs and practices in the context of training makes it possible to change the meaning of the words inspection and supervision, which did not differ in MISAU's past experience, where the practices of task collection, with lists of requirements, stimulating the concealment of reality to protect those involved, prevailed. This is an action that is also considered a *phronesis*, in the search for better-quality education.

Protagonism and autonomy

Protagonism and autonomy as defining characteristics of the training processes were noted in the technicians' voice: "changes depend on people, we are the ones that have to make them", evidencing the group's authorship and identity for collaborative and responsible actions. Others said, "we [the technicians] are going to get together, discuss the strategy and make the decision that will be the best one for our country", and "the advisors are here to support us and not to decide for us what has to be done" (accounts, 2012, 2013, 2014).

It was also the protagonism of the video production participants that generated involvement and interest. By taking on the narrative model format (BRUNER, 1986), the video tells the story of the community, bringing people, teachers and students into this scenario, turning them into actors, protagonists of this process, expanding learning possibilities.

Final reflections

The professionals' experience at MISAU included each one's life history and training project in this adventure to innovate. A disorganised and unlearned team turned into a community that shares conceptions and practices, showing that it is worth fighting for, as Fullan and Hargreaves (2001) mention.

Far from the initial attitude of lack of pedagogical knowledge, of oppressed minds and bodies, of the absence of professional and personal training, emerged a team that exercises reflexive and critical practice, endowed with self-esteem, with autonomy to make decisions, with sensitivity to listen to others and carry out collective actions that demand democratic pedagogy and dialogic processes to modify and root new pedagogical practices at the IdFs.

As a result of this training, the team was able to autonomously restructure the training department into sections for pedagogical training (initial and continued), teaching methodology, supervision, evaluation and curriculum for providing support to the country's IdFs. The initial training and teaching methodology teams advanced in this training stage, institutionalising changes in quality. Now it is up to them to expand that experience by supporting other teams. The challenges for the next training phase require support in the continued education, supervision and monitoring, assessment and curriculum areas.

Isonomy between the training process provided for in ProFORSA and the account of experiences of professionals and external experts is one of the factors that sustain the significant changes made by the MISAU team. In this journey, in the reflections on their lives as educators, the professionals have embedded into their accounts the marks of their experiences resulting from the wealth generated by the confrontation of beliefs and training practices.

The valuation of qualitative aspects evidenced by the research as collective action and sustainability, to the detriment of quantitative studies previously carried out by JICA, is mentioned by the JICA Mozambique Newsletter: "the best result is not translated into numbers, but in the team's commitment to the collective construction of solutions, and in the sum of efforts in carrying out sustainable actions" (JICA..., 2016, p.3).

A warning remains, however, in the sense that the presence of educational acts in *phronesis* format requires constant attention, as there is risk of returning to the bureaucratic tendency, into the comfort of repetitive actions. Other challenges arising from the unstable situation in Mozambique, shaken by social and political conflicts, are the constant political and leadership changes, which require the commitment to maintain the group's identity and convivial process, including democratic relations, with manners of differentiation in which if differences are accepted without their being translated into domination among team members, so that the work is not discontinued.

References

ALAVARSE, Ocimar Munhoz (Coord.). **Relatório analítico-descritivo:** diagnóstico da situação actual das instituições de formação da saúde do MISAU. Maputo: Misau, 2015. Versão interna.

ARROIO, Agnaldo. Teachers' empower development by video productions in the Republic of Mozambique. **Media & Learning News**, p. 1-2, mar. 2016.

ARROIO, Agnaldo; MAUAIE, Clara; ITO, Lucy Sayuri. Media literacy empowering heath teachers in the republic of Mozambique. In: IOSTE — SYMPOSIUM: SCIENCE AND TECHNOLOGY EDUCATION FOR A PEACEFUL AND EQUITABLE WORLD, 17., 2016, Braga. **Anais...** Braga: [s. n.], 2016. 3 p.

ARROIO, Agnaldo; MAUAIE, Clara; ITO, Lucy Sayuri. Produção de materiais didáticos apoiados nas TDIC para cursos em Saúde. In: SOBRAL, Maria Neide; GOMES, Carlos Magno; ROMÃO, Eliana (Org.). **Didática online**: letramentos, narrativas e materiais. Maceió: EdUFAL, 2015. p. 147-160.

BAKHTIN, Michel. Estética da criação verbal. São Paulo: Martins Fontes, 1992.

BARDIN, Laurence. **Análise de conteúdo.** Lisboa: Edição 70, 2004.

BAUER, Adriana; ALAVARSE, Ocimar Munoz; OLIVEIRA, Romualdo Portela de. Avaliação em larga escala: uma sistematização do debate. **Educação e Pesquisa**, São Paulo, v. 41, n. especial, p. 1.367-1.382, dez. 2015. Disponível em: http://dx.doi.org/10.1590/S1517-9702201508144607>. Acesso em: 24 mar. 2017.

BOGDAN, Robert; BIKLEN, Sari Knopp. Qualitative research for education. 2. ed. Boston: Allyn & Bacon, 1992.

BRUNER, Jerome. Actual minds, possible worlds. Cambridge: Harvard University Press, 1986.

CABAÇO, José Luís de Oliveira. **Moçambique:** identidade, colonialismo e libertação. 2007. Tese (Doutorado em Antropologia Social) — Faculdade de Filosofia, Letras e Ciências Humanas da Universidade de São Paulo. São Paulo, 2007.

CARR, Wilfred; KEMMIS, Stephen. **Becoming critical:** education, knowledge and action research. London: Routledge Falmer, 1986.

CONTRERAS, José Domingo. Pedagogía de la experiencia y la experiencia de la pedagogía. In: CONTRERAS, José Domingo; FERRE, Nuria Pérez de Lara (Org.). **Investigar la experiencia educativa.** Madri: Morata, 2010. p. 241-271.

DERRIDA, Jacques. Limited Inc. Campinas: Papirus, 1991.

FREIRE, Paulo. A importância do ato de ler: em três artigos que se completam. 6. ed. São Paulo: Cortez, 1984.

FREIRE, Paulo. **Pedagogia do oprimido.** 17. ed. Rio de Janeiro: Paz e Terra, 1987.

FRY, Peter. Pontos de vista sobre a descolonização em Moçambique. **Revista Brasileira de Ciências Sociais,** São Paulo, v. 26, n. 76, p. 207-211, jun. 2011. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-69092011000200012&Ing=en&nrm=iso. Acesso em: 23 mar. 2017.

FULLAN, Michael; HARGREAVES, Andy. Por que é que vale a pena lutar? O trabalho de equipa na escola. Lisboa: Porto Editora, 2001.

HARGREAVES, Andy. **Os professores em tempos de mudança:** o trabalho e a cultura dos professores na idade Pós-moderna. Lisboa: McGraw Hill, 1998.

HARGREAVES, Andy et al. **Aprendendo a mudar:** o ensino para além dos conteúdos e da padronização. Porto Alegre: Artmed, 2002.

JICA; MISAU. Strengthening pedagogical and technical skills of teachers of health training institute in **Mozambique.** Misau: [s. n.], 2015. Project completion report.

JICA MOZAMBIQUE NEWSLETTER, Maputo, v. 8, jan. 2016. Disponível em: https://www.jica.go.jp/mozambigue/english/office/others/c8h0vm00008n8euu-att/news201601.pdf. Acesso em: 28 mar. 2017.

KEMMIS, Stephen; SMITH, Tracey J. (Ed.). **Enabling praxis:** challenges for education. Rotterdam: Sense, 2008.

LARROSA, Jorge. La experiência de la lectura: estudios sobre literatura y formación. Barcelona: Alertes, 1996.

MAUAIE, Clara; ITO, Lucy; ARROIO, Agnaldo. Teachers' skills improvement to use computer into health education in the republic of Mozambique. In: INTERNATIONAL SCIENTIFIC CONFERENCE ON DISTANCE LEARNING IN APPLIED INFORMATION, 10., 2014, Štúrovo. **Conference proceedings...** Štúrovo: [s. n.], 2014b. p. 402-409. Disponível em: http://conferences.ukf.sk/public/conferences/1/2014/divai2014. Acesso em: 27 mar. 2017.

MAUAIE, Clara; ITO, Lucy; ARROIO, Agnaldo. The media literacy contributions to health education in the Republic of Mozambique. **Journal of Science Education**, v. 15, ed. especial, p. 60, 2014a. Disponível em: http://www.scientiasocialis.lt/pec/files/pdf/vol60/114-124.Mauaie Vol.60.pdf>. Acesso em: 27 mar. 2017.

NANLÁ, Suraia Mussa. et al. Programa de formação pedagógica continuada: uma experiência em processo nos cursos técnicos de saúde em Moçambique. In: COLÓQUIO INTERNACIONAL SOBRE EDUCAÇÃO PROFISSIONAL E EVASÃO ESCOLAR, 3., 2013, Belo Horizonte. **Cadernos de resumos**. Belo Horizonte: UFMG, 2013. p. 37.

NOTIÇO, Ermelinda Maria do Sacrário et al. Experiência docente na implementação do currículo de enfermagem geral baseado em competências em Moçambique. In: CONGRESSO NACIONAL DE FORMAÇÃO DE PROFESSORES, 2., 2014 e CONGRESSO ESTADUAL PAULISTA SOBRE FORMAÇÃO DE EDUCADORES, 12., 2014, São Paulo. **Anais...** São Paulo: Unesp, 2014. p. 10.567-10.576.

OLIVEIRA-FORMOSINHO, Júlia. **O desenvolvimento profissional das educadoras de infância:** um estudo de caso. 1998. Tese (Doutorado) — Universidade do Minho, Braga, 1998.

OLIVEIRA-FORMOSINHO, Júlia. Pedagogia(s) da infância: reconstruindo uma práxis de participação. In: OLIVEIRA-FORMOSINHO, Júlia; KISHIMOTO, Tizuko Morchida; PINAZZA, Monica Appezzato (Org.). **Pedagogia(s)** da infância: dialogando com o passado, construindo o futuro. Porto Alegre: Artmed, 2007. p. 13-36.

SCHÖN, Donald. Reflection-in-action. In: POLLARD, Andrew (Ed.). **Readings for reflective teaching.** London: Continuum, 2002. p. 5-7.

THURLEY, Monica Gather. Inovar no interior da escola. Porto Alegre: Artmed, 2001.

VELASCO, Germana et al. Perdas escolares nas instituições de formação de Saúde em Moçambique em 2012. In: COLÓQUIO INTERNACIONAL SOBRE EDUCAÇÃO PROFISSIONAL E EVASÃO ESCOLAR, 3. 2013, Belo Horizonte. **Cadernos de resumos.** Belo Horizonte: UFMG. 2013.

Received on April 10th, 2017 Modified on June 20th, 2017 Approved on October 25th, 2017

Tizuko Morchida Kishimoto is a professor and senior researcher at the University of São Paulo Education College.

Lucy Sayuri Ito is a paediatrician graduated from the University of São Paulo Medical School and is responsible for JICA's health education actions in Mozambique.