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Informal CPD practices by TVET teachers in Kenya

Introduction

As a developing country, Kenya needs high quality and effective TVET for its development. However, quality TVET depends on competent TVET teachers, who are, in turn, the outcome of quality initial teacher education as well as effective Continuing Professional Development. Therefore, Kenya must develop mechanisms to provide high quality and effective CPD to its TVET teachers. While this is obvious, resource constraints have often limited the professional development available to TVET teachers. However, part of the challenge in availing CPD is rooted in a narrow conception of what legitimate and effective CPD is.

The literature on Kenya's TVET teachers' paints a depressing picture of teachers who infrequently participate in Continuing Professional Development. The literature mainly focuses on formal and non-formal CPD as the only viable forms of teacher CPD. Given that existing professional guidelines only recognise and reward formal learning, it appears that TVET teachers have a preference for formal CPD. However, traditional education is expensive and inflexible, and consequently, only a few teachers can participate in it. Non-formal CPD, on the other hand, requires external facilitators and financiers, who, due to resource constraints, are rare. If researchers, therefore, seek evidence of CPD by focusing only on formal and non-formal learning, they are likely to report low participation in CPD.

Adult learning literature, however, suggests that due to the demands of their work, teachers will seek to learn to meet the needs of their work (Henschke, 2009). TVET teachers may therefore have been engaging in informal CPD because it is more flexible and less expensive. Unfortunately, the literature on informal CPD in Kenya is scant. Everyday learning practices may, therefore, be standard but simply unsearched and un-documented. This possibility presented the rationale guiding this study. It was hypothesised that informal learning might be typical but simply under-researched and, therefore, undocumented.

Accordingly, and owing to the limited prior research on the topic, the study sought to profile the informal leaning practices by TVET teachers in Kenya in terms of frequently used learning methods and the reasons for choosing those methods. The study further sought to identify what challenges teachers face as they learn informally and seek their views on improving informal learning.

Literature Review

Adult learning literature identifies an even broader set of learning practices. Foley G. (1999) identified four specific forms of adult learning, namely, formal education, non-formal education, in-formal education and incidental learning. Formal and non-formal education entails systematic instruction, but while formal education follows a formally defined curriculum leading to some form of recognised qualification, non-formal education may be one-off or sporadic and often does not lead to formal qualifications. Informal learning, on the other hand, lacks formal instruction. But unlike incidental learning, the learner or learners are conscious of their need to learn, consciously engage in learning and reflect on their learning processes and outcomes. This typology of leaning practices enables us to focus on in-formal learning practices as an alternative to formal and non-formal learning practices where no external facilitators who organise and provide systematic instruction can be identified.

The literature on teacher CPD similarly adopts an expansive conception of teacher learning and the methods teachers can use to learn. In their classification of learning methods, Richter et al. (2010) group Foley's (1999) formal and informal education as traditional learning. Learning methods specific to teacher CPD in this category include graduate course, workshops, and seminars in which experts disseminate information relevant to teachers' work. Again, the criteria for formality is structured

learning following a specified curricular and facilitation by experts. These have also been termed as traditional methods, or discrete learning methods (Boyle, Lamprianou, & Boyle, 2005; Boyle, While, & Boyle, 2004; Desimone, 2009; Kennedy, 2014; Postholm, 2012).

On the other hand, informal learning lacks a specified curricular and participation is by the initiative and self-direction of the teacher. Leaning methods identified in this category are reading books and other professional literature, classroom observation and collaborative learning. Others are mentoring and action research. Owing to their close interaction with the context of teachers' work, the methods are termed as embedded and have the advantage of relating directly to teachers' daily and routine tasks. They further enable continuous reflection on practice and its outcomes (Desimone, 2009; Kennedy, 2005; Richter et al., 2010).

As expected, the value of learning does not depend on the type of knowledge, but the learning process's characteristics. This was confirmed by Desimone's (2009)review of literature on the features of CPD that lead to sustained learning outcomes. Desimone and later OECD (2013)found that CPD is sufficient if the learning it entails is focused on relevant content, and the learnt content is coherent. Further, professional development must involve active learning and be of sufficient duration. Finally, education should be collaborative. This is the case whether the CPD is formal, non-formal or informal. Thus, CPD need not be traditional to be effective; instead, informal CPD may be sufficient while being easier to organise and drawing more significant commitment from teachers. It is, therefore, justifiable to investigate everyday learning practices as a first step in seeking to enhance their effectiveness.

The criteria for effective CPD closely mirrors and is, in fact, a restatement of the general principles of adult education. Knowles (1970) and Henschke (2009) summarised adults learn best when they are actively involved in their learning and accordingly prefer teaching processes that are active and interactive. Further, due to their time perspective, they seek understanding that is of immediate application, and that relates to their current needs and social roles. It, therefore, follows that CPD, as a form of adult education, is useful only if it aligns with these principles by being relevant to the needs of teachers, being coherent, involves active and collaborative learning and is of sufficient duration of time.

Methodology

The study adopted a mixed-methods design involving a survey questionnaire and semi-structured interviews. Both the questionnaire and the semi-structured interviews focused on the informal learning practices of TVET teachers in Kenya. The questionnaire listed standard everyday learning practices and asked respondents to indicate how frequently they used the methods. Respondents were further asked to rate how helpful they find the ways to be. To profile the informal learning practices according to the characteristics of the teachers, the questionnaire also collected data on the personal and professional attributes that were expected to influence informal learning.

During the oral interviews, respondents were briefly asked to provide similar data. However, the talks focused more on the reasons underlying the existing practices at the individual and group level. For example, interviewees were asked how often they had seen their colleagues learn collaboratively and the reasons that might explain the observed frequency.

Participants were randomly selected from three TVET institutions in Kenya's Nairobi Metropolitan area. The institutions were selected based on location, one in an industrial town, one in the centre of the capital and one in the less urbanised area of the metro.

Hypotheses

It had been hypothesised that teachers would participate in the informal learning practices that they found most helpful. Literature has suggested that the career stage of a teacher influences the learning practices of teachers. Accordingly, it had been hypothesised that early career stage teachers would wish to participate in all the various informal learning opportunities. Early career stage teachers were

also expected to desire all forms of teacher knowledge (content knowledge, pedagogical knowledge and pedagogical content knowledge) owing to their limited exposure to all facets of teaching. Middle career stage teachers who often lack time due to additional duties were expected to report lower participation rates. Late career stages were, on the other hand, expected to have similarly low participation rates, with their learning focused more on content knowledge rather than pedagogical experience and pedagogical content knowledge. Other attributes, such as gender and family status, were not expected to play a role.

Informal CPD practices had been grouped into three categories, namely, collaborative learning practices, practice-based learning activities and self-paced learning activities. Besides, teachers were asked how often they read professional literature. Reading professional literature was evaluated separately from other self-paced learning activities to get a more detailed view of the reading habits of the teachers.

### Findings

Description of the respondents

Data collection took place during the months of July and September from the three selected technical training institutes. In total, forty validly filled questionnaires were obtained, and from each institute, a volunteer teacher was chosen to participate in the oral interviews. The majority of the respondents were male, 22 of who filled the questionnaires and two who participated in the oral interviews. All the respondents had received some form of formal pedagogical training; three had a PhD degree, eleven had a Masters degree, nineteen had a Bachelors degree, and seven had a Diploma. The majority of the respondents were middle career stage teachers, having worked form more than five years but less than twenty, while eight were early career stage teachers who had worked as a teacher for less than five years. Only three teachers were in their late-career stage.

Use of Informal Learning Methods

From the survey data, informal learning methods appear not to be very common. Only five per cent of the teachers said they allow their colleagues to observe them teach. This response agrees with responses from the oral interviewees. Interviewed teachers indicated that lesson observation and team teaching rarely happens. Co-teaching, as practised in the TTIs, was revealed not be the classical form where the teacher teaches a lesson together in the same class. Instead, a subject is split up into topics, and each teacher introduces an issue on his own. Thus the other teacher does not get to learn from his or her colleague. The chart below shows collaborative methods and their reported use frequencies by teachers who reported having participated in collaborative learning practices at least once in the past year.

Similar to collaborative learning activities, teachers rarely engage in embedded and practice-based learning activities. More than half of the teachers said they had never participated in the design and improvement of content, materials and learning practices. At the same time, two-thirds indicated that they never write reflections on their way and outcomes. However, a higher number said they had participated in some research, but the proportion of those who said they had not attended was still high at 40 per cent.

Figure 1**: Informal Learning Methods**
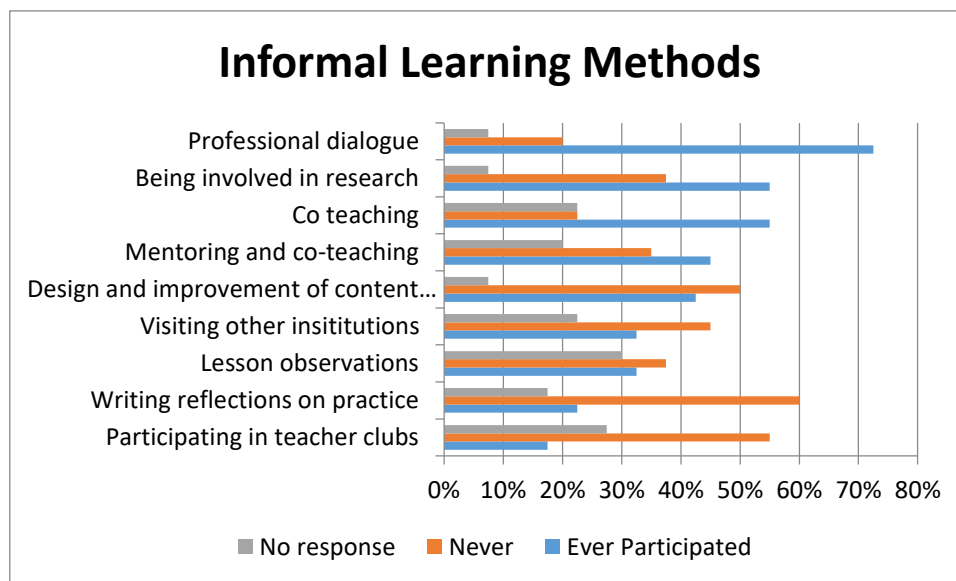
From the chart, it is clear that professional dialogue with colleagues is the most common collaborative learning method. More than half the teachers said they had never participated in mentoring other teachers, visiting other institutions, observing others teach or participated in teacher clubs. These learning methods are, therefore, very rare.

The responses from the interviews supported the survey data and gave the impression that they are even rarer than what the survey data showed.

From the interviews, it was clear that the teachers appreciate the value of collaborative learning activities. However, and in agreement with the survey, they said such collaborative learning activities rarely take place. The first interviewee was enthusiastic about team teaching, arguing that it helps both the learners and the teacher:

"Learners benefit from the better-placed person; I also learn from a better-placed person".

However, these activities are rare. Interviewee-Two was specific when asked about collaborative learning practices.

"Well…for some time, we have rarely done that..... what we have done has been very formal".

The same teacher went on to explain:

".....the aspect of team teaching has become a challenge. Getting two people to one place at the same time is a bit difficult. ....you can maybe share some knowledge, but not real practical collaboration whereby you have two or three people at the same time, complementing what the other is doing... it is a bit difficult."

The reasons given for the lack of collaborative learning were the lack of time and the lack of a framework to guide collaborative and other informal learning practices. Interviewee-One put it blankly: *"Not particularly, time does not allow".*

Interviewee-Two gave a more detailed response, noting that the student population has increased and the demand for teachers time. As such, teachers do not have the time to do anything else other than attending their classes and teach. There is simply not enough time to learn.

The widespread lack of collaborative learning practices was also deemed a cultural issue. Interviewee-Three was emphatic that the organisational culture at present did not support collaborative teaching practices. In her opinion, teachers in her institution lack the openness and collegiality that promotes

collaborative learning. She blamed this on the competitive nature of the evaluation system, where student performance is seen as a teacher's performance.

Where culture is absent, it may not develop spontaneously. Thus, Interviewee-Two indicated that teachers tend to follow what has been going on in their institutions.

"…it is a cultural issue. At times we go as per what has been going on".

However, the teacher then emphasised that this may also be because of the lack of time owing to the large number of students that the teachers are expected to handle.

Interviewee-Two and Interviewee-Three indicated that institutions sometimes carry out benchmarking where they visit other institutions to see what happens there and what their institution may learn from the visited institution. But this does not normally involve teachers per se, but the Heads of Departments often look at benchmarking as a management learning activity. The benchmarking exercises, therefore, take an administrative sense and focus on management challenges rather than pedagogy. Benchmarking, as practised, therefore, fails to support teachers develop and improve their teaching skills.

As Interviewee-Three indicated, benchmarking activities fail to benefit teachers because learning is not shared with other teachers.

"Benchmarking? Yes, it happens. But not me. They just pick the HODs only to go, and just check what is happening in other institutions in terms of administration, how they are dealing with just that. But when they came…...they did not talk with the staff... how it went or what we are supposed to be changing, or what are we adopting…...there is nothing that was discussed."

Self-paced learning

As a self-paced learning activity, reading about teaching had the highest participation rate, with 93.1 per cent of all the teachers saying they engage in self-paced reading about teaching. It was also the activity that teachers found most useful, with 93.8 per cent of the respondents saying they found it helpful and only 3.1 per cent saying they did not find it helpful. The self-paced learning activity with the lowest participation rate was reading general educational theory, with only 58 per cent of the respondents saying they read educational theory more than rarely. It also had the highest percentage of teachers who felt that it was unhelpful to their work as teachers. The responses are shown in Table 1. below.

Teachers likely read about teaching as they seek to address the specific problems they face. They, therefore, find it useful because it addresses real concerns that they are dealing with.

Table 1: **Self-Paced Learning Methods**

	Read about teaching methods and practices (%)	Watch videos about teaching methods and practices (%)	Read about my teaching subjects (%)	Watch videos about my subjects (%)	Read about theory (%)	Read Primary Literature (%)	Read Secondary Literature (%)	Read Tertiary Literature (%)	Read Grey Literature (%)
Frequently	82.4	78.8	77.8	64.7	58.1	72.7	66.7	81.1	67.6
Rarely	11.8	12.1	13.9	20.6	22.6	15.2	18.2	13.5	11.8
Never	5.9	9.1	8.3	14.7	19.4	12.1	15.2	5.4	20.6
Helpful	93.8	83.9	85.3	80.6	71.4	74.2	80	89.2	74.2
A little helpful	3.1	6.5	8.8	9.7	10.7	9.7	10	5.4	9.7
Not helpful	3.1	9.7	5.9	9.7	17.9	16.1	10	5.4	16.1

From the interviews, the teachers prefer self-paced learning activities because of the control over one's learning that is inherent in self-paced learning activities. Interviewee-One said this about the use of You-tube and other free learning resources available online:

"Because you now able without having to interact with the person directly, get to hear what they are doing, how they are doing it, what kind of results they got,......so in away it is just like reading a book or some journal somewhere. You are able to pick up some additional information. Indeed you can stop it and watch it later... unlike a session where you have to go for one hour, and you have to sit and listen to it from the beginning to the end and... if you miss out on something, you have missed out. With this one ...you can rewind, you can interact with this one in your own way."

Sources of information

To evaluate their sources of information, participants were asked to indicate how frequently they used particular sources.

Respondent teachers mostly obtain information from and prefer to read tertiary literature as opposed to primary literature and secondary literary. A significant number, 20 per cent of the respondents, also do not read grey literature related to teaching, such as educational policy documents. Teachers mainly read literature to keep their content knowledge up to date, with 84.6 per cent of the respondents giving this as the reason for reading literature. Only 10.3 per cent read literature as part of their masters and PhD studies, and the only one said they read literature because they are involved in the research. It is likely that respondents rarely participate in any research apart from desk research related to their teaching activities. It is also interesting that they choose to keep their knowledge up to date by reading tertiary literature rather than primary literature. More research needs to be conducted to explore why this is the case.

The patterns are represented in the charts below. The expectation that teachers who find a particular practice helpful will report participating in them more frequently is met.

Choice of method

The teachers were further asked to state how helpful they found various informal learning activities to be. To simplify the analysis, responses were categorised as useful, not helpful and not participated. Helpful consisted of those who stated that the methods were beneficial, fairly beneficial, helpful and a little helpful. Many teachers chose not to evaluate how practical the methods are, choosing instead to indicate that they had not had the opportunity to participate. The responses are shown in the chart below.

A close-tabulation of the participation in professional dialogue and teacher's evaluation of how helpful the methods are perceived to be shows that teachers who had participated more than twice rated professional dialogue as very helpful. Twenty-two respondents indicated that they had participated more than two times, and seventeen of these (77 per cent) felt that professional dialogue is constructive. This finding supports the expectation that teachers participate more frequently in the learning activities that they find useful.

The cross-tabulation is shown in the table below.

Similar patterns were observed with the rest of the collaborative learning activities.
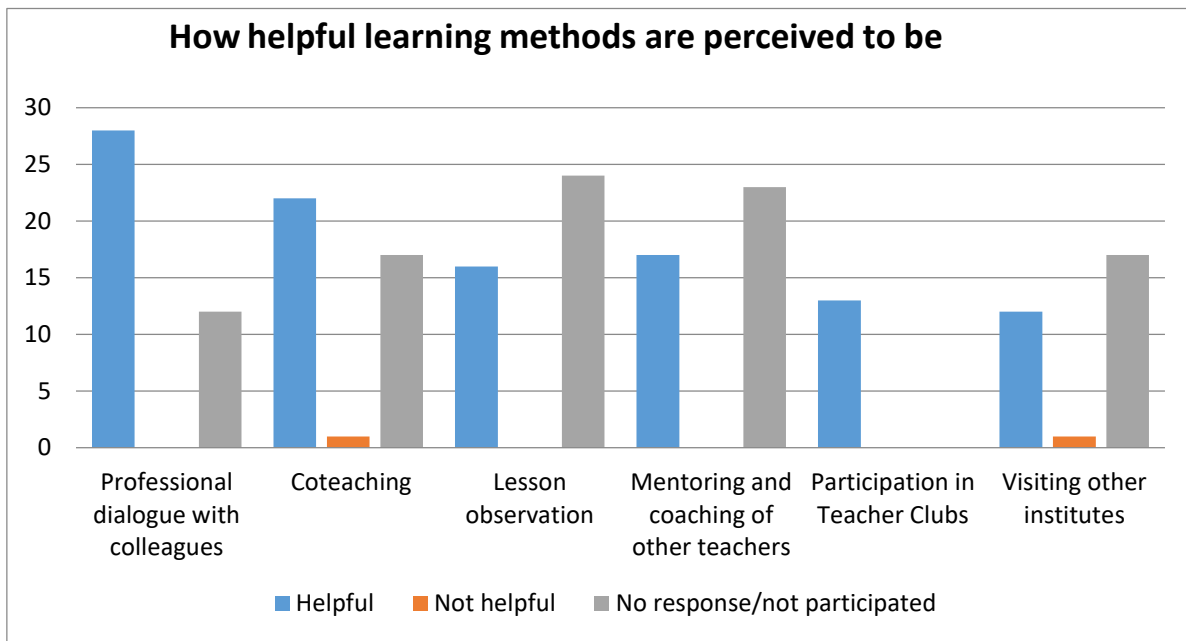
Figure 2: **Choice of Learning Methods**

How helpful learning methods are perceived to be

Table 2: **Cross tabulation of helpfulness and frequency of using professional dialogue**

		How helpful is Professional dialogue with colleagues?				Total
		Very helpful	Fairly helpful	Helpful	A Little helpful	
How many times have you participated in professional dialogue with colleagues?	At least twice	17	1	3	1	22
	Once	3	1	1	0	5
	Never	0	0	1	0	1
Total		20	2	5	1	28

As expected, teachers who had participated more frequently in the design of content and learning materials found this activity helpful to their work as teachers. None of those who indicated having participated in this activity felt that it was unhelpful. Some of the respondents who said they had never participated in the design of content and learning materials still evaluated the activity as helpful to their work.

Table 3: **Cross tabulation of designing content and finding it helpful**

|		How helpful do you find "Design and improvement of teaching content, materials and practices"				Total
		Very helpful	Fairly helpful	Helpful	Not helpful	
How many times have you participated in "Design and improvement of content, materials and practices"	Twice or more	11	1	0	0	12
	Once	1	1	2	0	4
	Never	2	1	0	1	4
Total		14	3	2	1	20

This observation was repeated from the cross-tabulation of the frequency of writing reflections and evaluating the writing of reflections as helpful. None of the teachers evaluated writing reflections as unhelpful. Many simply skipped this question because they have not had prior experience with this learning activity. See the table below.

Table 4: **Cross tabulation of writing reflections and finding it helpful**

		How helpful do you find "Writing reflections on practices and their outcomes"			Total
		Very helpful	Fairly helpful	Helpful	
How many times have you participated in "Writing reflections on practice and their outcomes"	Twice or more	4	0	1	5
	Once	1	3	0	4
	Never	1	1	1	3
Total		6	4	2	12

It can therefore be concluded that nosomebody'sesitive correlation between how helpful teachers find a particular learning activity to be and how frequently they participate in that activity. However, the data set is too small to evaluate this with a stronger statistical test.

Figure 3: **Comparison of the use self paced learning method based on how helpful they are perceived to be**
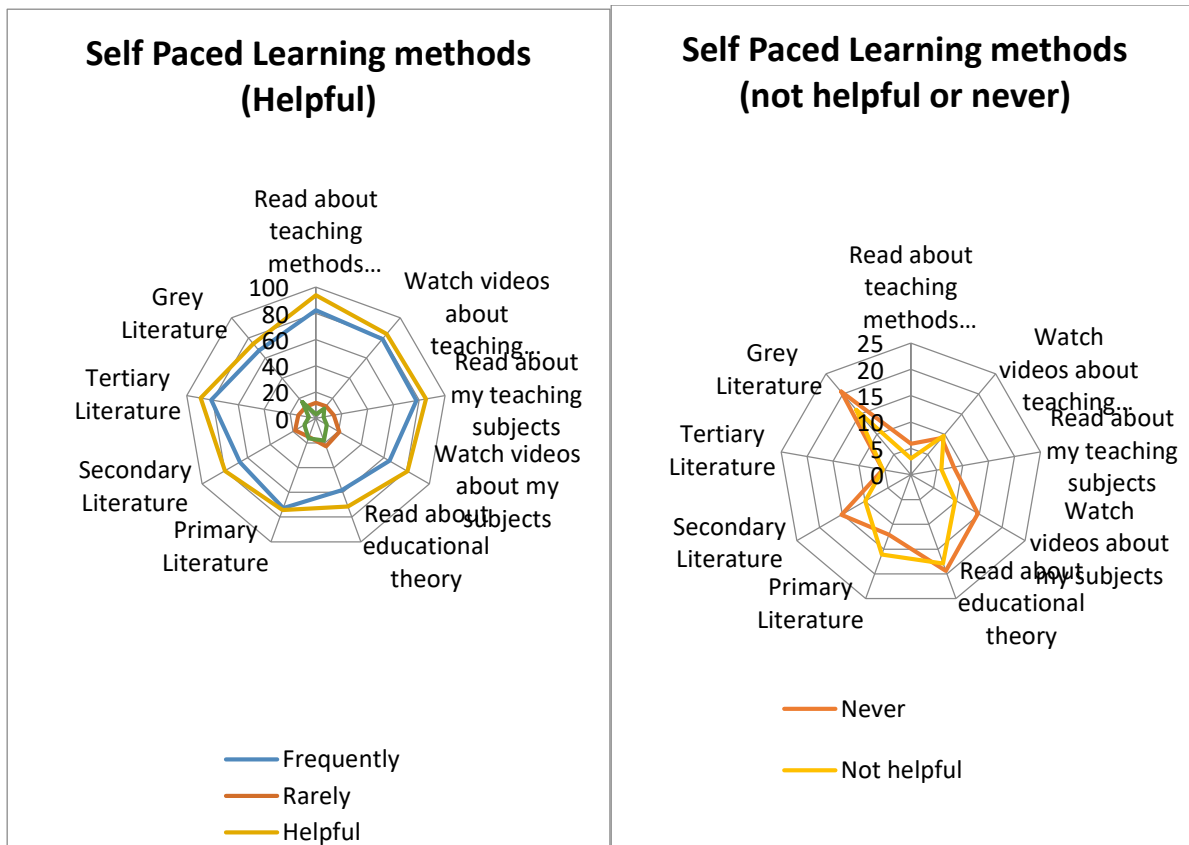
Forms of support

Equally rare as a form of learning and as way to support others learn is the use of mentorship. While it is logical to expect a higher percentage of middle and late career stage teachers to report having mentored their colleagues owing to their many years of practice, mentorship does not correlate with age or with the number of years worked as a teacher. The interviewees gave an insight into the low rates of mentorship stating that is no framework to guide mentorship. Mentorship is therefore ad hoc.

With respect to mentorship, Interviewee-One said that teachers mentor one another out of their own goodwill. There is simply no framework to guide mentorship. In the teacher's view, mentorship take the form of guiding junior teachers improve how they work. He further explained that there is no framework to guide and institutionalize mentorship in the institutions.

> *"To some extent, but it is not something that is very formalized..... that one is out of somebody's heart.....out of my heart. You want to point out something to somebody who has come in but not because it is expected or that there are guidelines for it."*

Table 5: **How teachers support other teachers learn**

	Frequency	Percentage of total sample
Mentor new/junior teachers	24	60
Participate in discussions about practice	22	55
Teach lessons for other teachers when they attend professional learning activities	9	22.5
Allow other teachers to observe my lessons	2	5
Participate in co-teaching	12	30

From the interviews, it was apparent that there is also no framework to support teachers go out of school for professional learning activities. This observation agrees with the survey data, where only a small proportion of the respondent teachers said they support their colleagues to learn by teaching their lessons while their colleagues are away on professional learning activities.

Conclusion and Recommendations

This study found that teachers are desirous of having control over their learning and seek methods that give them that control. The finding agrees with the general principles of adult learning. Adults generally prefer learning methods that give them control to pace their learning and select the content to focus on. They further prefer to focus on content that relates to their immediate needs and social roles (Henschke, 2009; Knowles, 1970; Thompson & Deis, 2004). Informal CPD, therefore, finds acceptance among teachers because it always them to exercise their agency. However, the full expression of general principles is often limited by context (Collier 2005). In this case, the strong demand for formal learning by the existing professional and career guidelines that TVET teachers in Kenya are subject to force teachers to focus prefer formal learning methods. Further, the organisational culture does not appear to support collaborative learning methods. Teachers, therefore, are therefore unable to obtain the full benefits of learning collaboratively with their colleagues. Informal learning methods, and in particular self-paced learning methods, should therefore be recognised and supported. Accurate methods of reporting self-paced learning should be developed to provide the evidence needed for rewarding teacher learning, such as of Teachers'arnings.

It is likely that an increase in collegiality could encourage collaborative learning and therefore produce a virtuous cycle of ever-increasing collegiality and learning. It is therefore further recommended that avenues to both encourage collegiality and collaborative learning be sought as a way to support either outcome.

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