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EFL TEACHERS' ATTITUDES TOWARDS ICT LEADERSHIP AND ICT COLLABORATION IN HIGH SCHOOL EDUCATION IN MOROCCO

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Abstract:

In compliance with the ISTE (International Society for Technology in Education) standards for educators, the present study investigates the roles teachers play as ICT leaders and collaborators. To this end, a survey questionnaire is administered to 55 high school teachers. Participants belong to the community of EFL teachers working in private schools in Marrakesh, Morocco. Through a quantitative analysis, this research is geared towards probing the ICT relationships teachers entertain with the various educational stakeholders, namely administrators, parents, colleagues, and students. Results demonstrate that teachers generally reach out to administrators to provide for ICT equipment in spite of their lack of ease at using some ICT tools, namely the interactive board and the data show. They also favor face-to-face over virtual communication with parents. In terms of ICT collaboration, teachers generally either actively net-connect with their peers or are willing to do so. Concerning online communication with students, a generally positive attitude is discernible in terms of communication at class level. Maturity and professional experience are two factors that boost teachers' positive rapport with parents, colleagues and students. On the other hand, teachers' contact with students at individual level is still unsatisfactory. Likewise, a reticence is noted among older and veteran teachers to exploit online platforms in their teaching practices. In view of the above results, there is an incessant need to include ICT leadership in teacher education programs. In the same mode, ICT collaboration as well as the use of ICT tools and online platforms should be accounted for in the professional development of EFL practitioners in Morocco.

Keywords:. The International Society for Technology in Education; ICT leadership; ICT collaboration; Moroccan EFL high school teachers

1. INTRODUCTION

Today, technology plays a prominent role in education. The impact is tremendous on teaching practices and teaching English as a foreign language is no exception. In the Moroccan context, substantial efforts have been made to promote digital learning. In 2008, the International Society for Technology in Education (ISTE) issued a set of standards that set the ground for teaching, learning, and leading in the digital age. The impact was tremendous worldwide. In 2016, an updated version of these standards was released to keep pace with the demands of digital education in a constantly changing globalized world. In line with ISTE standards for educators, the present study is a sequel to a former one that explored the roles of teachers as ICT designers and facilitators (Slimani & Aatta, 2022). In this respect, the paper investigates the roles of Moroccan high school teachers as ICT leaders and collaborators. Special interest is given to leadership qualities EFL teachers display in the classroom, at school, and within professional networks as well as collaboration with colleagues and students to digitize the classroom.

2. BACKGROUND OF THE STUDY

The need to incorporate ICT in education is undeniable. Yet, the digital divide is one of the main challenges that hampers the process. Following Swain and Pearson (2001), this divide refers to a significant disparity in the access to and equity of technology experience based on variables such as income, race, gender, geographical location, or education. Endeavors to solve the problem can take different pathways. Nonetheless, no workable solution is feasible without taking into account the most important element: the teacher. In fact, teachers and educators are called upon to live up

to expectations as active agents of ICT integration in education. Indeed, the matter is inevitable given the continuous advances in technology and growing access to the internet in and outside of school. In this respect, the 2016 ISTE (the International Society for Technology in Education) set guidelines for the roles of the 21st century digital educator. These roles are included in seven general categories that make up the ISTE standards for educators. These standards account for seven roles of educators: Learner, Leader, Citizen, Collaborator, Designer, Facilitator, and Analyst. The aim is to prepare teachers to digitize their classrooms. Technology educators are also held to high requirements of communicating with one another for better ideas on how to engage their students in technology-enhanced activities (Zook, 2021). In the same mode, they are held responsible for reaching out to other parties (e.g., parents, and administrators) to create learning environments that favor ICT integration.

3. ICT LEADERSHIP AND ICT COLLABORATION IN EDUCATION

We live in a constantly changing world. To meet the new demands of modern society, educational changes are vital. Being active agents of change in education, teachers are expected to fulfill their roles as 21st century educators. Two examples of these roles are ICT leadership and ICT collaboration.

3.1 Teachers and ICT Integration: An Individual or a System Responsibility?

The impact of ICT change on education is tremendous. Today, teachers and educators are dealing with "digital natives" who are growing up with ICT as an omnipresent tool (Tondeur et al, 2009). In this respect, it seems that teachers are doomed to integrate ICT in their teaching practices. Nonetheless, the process is complex and the adoption of ICT in schools is very often limited (Smeets, 2005). Some teachers are intrinsically motivated to use ICT in the classroom, while others do not share the same affinity (Tondeur et al, 2009). In the same line of thought, several studies pinpoint the participative role of teachers in the planning and decision-making process in schools as a crucial factor in ICT integration (Bowman et al, 2001; Hadjithoma & Karagiorgi 2009). Such involvement of teachers is connected to their ownership of the ICT implementation initiative (Hadjithoma & Karagiorgi 2009). In fact, a number of studies focused on teachers' characteristics that are conducive to ICT integration in educational practices such as teacher's innovativeness (Van Braak, 2001) and their computer experience (Bovée et al, 2007).

Yet, ignoring factors other than teacher's involvement would inevitably yield to erroneous conclusions. Accordingly, Slimani (2022) enumerates a number of context-bound challenges that impede the integration of ICT in the classroom. He states a number of variables other than digital competence and motivation, namely time constraints, effective training, and availability of ICT resources. In the same mode, Tondeur et al. (2009) contend that structural and cultural characteristics of schools highly affect the integration of ICT at classroom level. The provision of ICT infrastructure and ICT-related support are important variables that come into play. Bradley and Russell (1997), for instance, affirm that adequate resources and a high degree of support have a positive effect on teachers' integration of ICT in their education practices. Another equally important factor is the school culture (Tearle, 2003). The lack of supportive leadership and the prevalence of traditional and rigid teaching practices hamper the success of all endeavors in the matter.

3.2 Educational Leadership and ICT Integration

Leadership is a key component in education. Following Byrom and Bingham (2001), it plays a vital role in taking the educational decisions that are necessary to equip today's students with the relevant knowledge and skills to become productive citizens of the 21st century. In the same line of thought, Dinham (2005) contends that leadership is highly responsible for developing effective, innovative schools and fostering quality teaching and learning. In the context of ICT integration, e-leadership comes into play as a decisive element in the promotion of e-schools. Following Tahir et al (2021, p.75), it is "a social-influence process interceded by ICT to produce changes in attitudes, feelings, thinking, behavior, and/or performance with individuals, groups, and/or organizations."

Following ISTE guidelines for educational leadership, educators are expected to shape, advance, and accelerate a shared vision for empowered learning with technology by engaging with education stakeholders (Technology in action Guide, 2017). In fact, the shared vision principle echoes Dexter's (2008) emphasis on the importance of team work for educational leadership. According to her, leaders, coordinators, administrators, teachers and other staff are all called upon to jointly contribute to promote effective ICT leadership.

3.3 E-capacity and ICT Integration

Another important variable for the implementation of ICT leadership is school context. It is referred to as the e- capacity of a school (Vanderlinde and van Braak, 2010). In their words, the e-capacity of a school is "the collective competence of a school to implement ICT in a way that is a lever for instructional change" (2010, p. 542). Hatlevik and Arnseth (2012) define e-capacity in terms of two dimensions. The first one relates to what school staff and leaders can achieve together by sharing their resources and motivation. The second one relates to the organization's willingness and potential to go through changes and ensure the implementation of ICT.

In broader terms, Kozma (2003) outlines the concept of e-capacity by describing actors and factors that mediate change and influence the use of ICT in the classroom. Many of these make an integral part of the subsequent conceptual framework that is developed by the International Society for Technology in Education (ISTE). In fact, Kozma (2003) define ICT practices in terms of three contextual levels:

1- The classroom: (the micro level): factors include classroom organization, teacher's traits and experience with ICT, and students' characteristics.
2- The school or local community (the meso level): reference is made to school leaders, parents, school organization, ICT infrastructure, technical support, and local culture.

3- The state, national, and international entities (the macro level): focus is on state and national policies as well as international trends.

3.4 Collegiality and ICT Integration

No one denies the importance of collaboration in the improvement of the teaching and learning process. Harris (2002) highlights the crucial role of collegiality in building the capacity for school improvement. In the case of ICT integration, there is a scholarly consensus on the importance of collaborative relationships between teachers in digitizing the classroom (Granger et al., 2002; Hadjithoma & Karagiorgi 2009; Mumtaz, 2000). Granger et al. (2002), for instance, pinpoint peer support and collaboration as important factors that facilitate ICT implementation in the classroom. Examples of these factors are team teaching and planning, technical problem-solving assistance, and learning.

The merits of collegial collaboration transcend individual level (i.e., the teacher). Lakkala and Ilomäki (2015) exhort that sharing of ICT knowledge and experience among teachers of the same school should promote a school wise vision of ICT integration that spurs other schools to follow the lead.

3.5 Parental Involvement and ICT Use

Research revealed a positive relationship between students' academic achievement and their parents' involvement in their learning (Larocque et al., 2011; Bower and Griffin, 2011; Jimmerson et al., 1999). Much credit is indeed given to the parent-teacher relationship as it plays a decisive role in the success of the learning process. Today, parent-teacher engagement is made easier through the use of ICT (Clements & Samara, 2003). Nonetheless, parental involvement in their children's learning is not obvious as a number of factors come into play. Following Baeck (2010), parents' participation in their children's learning highly depends on the level of education. That is to say, parents with more formal education are more confident and more willing to play an active role in their children's education. From another perspective, Larocque et al. (2011) assert that the lack of clarity about the role parents are expected to play in their children's education primarily impact their involvement in their learning. This is indeed to highlight the conclusive role schools as institutions and teachers as individuals play to reach out to parents and encourage their engagement in their children's learning.

4. METHODOLOGY

The current study investigates the roles of Moroccan high school teachers as ICT leaders and ICT collaborators. It seeks to collect quantitative data from the target population on the nature of engagement teachers entertain with other stakeholders, namely administrators, parents, colleagues, and students.

4.1 Population and Sampling

The population of the study comprises 55 teachers from 23 private high schools in the directorate of Marrakesh, Morocco. The choice of the private sector emanates from the f act that it provides a better setting, compared to public sector, for ICT integration in terms of both financial and logistical resources. A convenience sampling strategy was adopted in the study as it was hard to reach out to a larger population of private school teachers across other regions of Morocco. The number of participants is assumed to be representative as it accounts for more than a third of the overall target population.

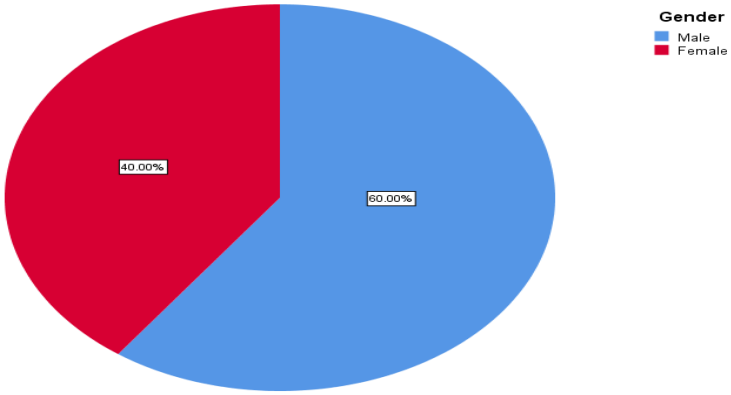
4.2 Survey Instrument Development

A survey questionnaire which comprised 13 ticking responses was designed. Items of the survey portray the different relationships teachers are expected to entertain with other educational stakeholders, namely administrators, colleagues, parents, and students. They also depict their roles as ICT leaders and ICT collaborators as defined by the ISTE (2016) standards for educators.

4.3 Teachers' Demographics

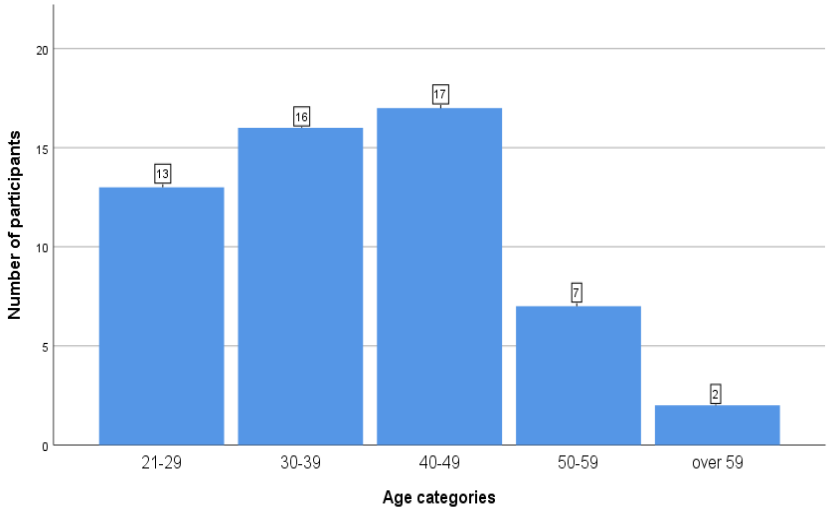
The study has taken into consideration a number of variables among participants (n = 55) including gender, age, and years of experience. As illustrated in chart 1, the majority of respondents are males (n = 33). They constitute 60% of the participants.

Chart 1: ***Count of Gender***



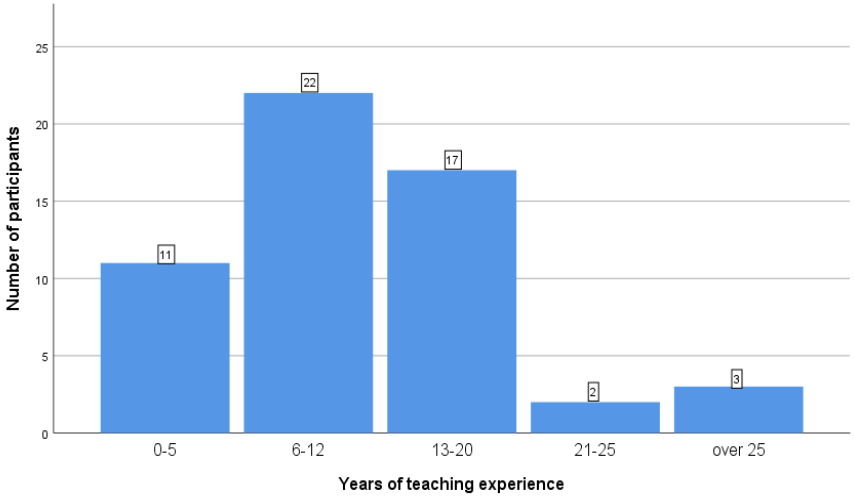
In terms of age, chart 2 shows that the dominant age category is that of participants ranged between 40 and 49 years old (n = 17).

Chart 2: ***Age Representation***



In terms of employment history, chart 3 demonstrates that most respondents have considerable teaching experience. In fact, statistics show that 40 % of participants have between 6 and 12 years of experience (n = 22). Similarly, 30 % of them have between 13 and 20 years of work experience.

Chart 3: ***Employment History Representation***



4.4 Teachers' ICT Skills

This part of the study puts under scrutiny teachers' ICT competence. In fact, teachers' level at using ICT is assumed to have an impact on their roles as ICT leaders and collaborators. Special focus is given to internet web skills as well as mastery of classroom ICT tools, namely the interactive board and the data show.

As demonstrated in table 1, 54.5 % of respondents (n = 30) have a good level at using the internet. Similarly, 45.5 % of them (n = 25) are good at using the interactive board. Data show statistics reveal that the majority of teachers are either good (38.2 % / n = 21) or excellent (41.8 % / n = 22) users of the device.

Table 1: ***Teachers' Levels at Using ICT Tools***

	Excellent		Good		Average		Below average		Poor	
	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %
Internet Web Skills	15	27.3%	30	54.5%	10	18.2%	0	0.0%	0	0.0%
Interactive Board	8	14.5%	25	45.5%	14	25.5%	4	7.3%	4	7.3%
Data Show	23	41.8%	21	38.2%	10	18.2%	0	0.0%	1	1.8%

4.5 Data Analysis Procedure

Survey responses were coded and entered into SPSS v.26. Graphs and tables used in the study were designed using the same statistical software platform as well as Excel spreadsheets.

5. FINDINGS

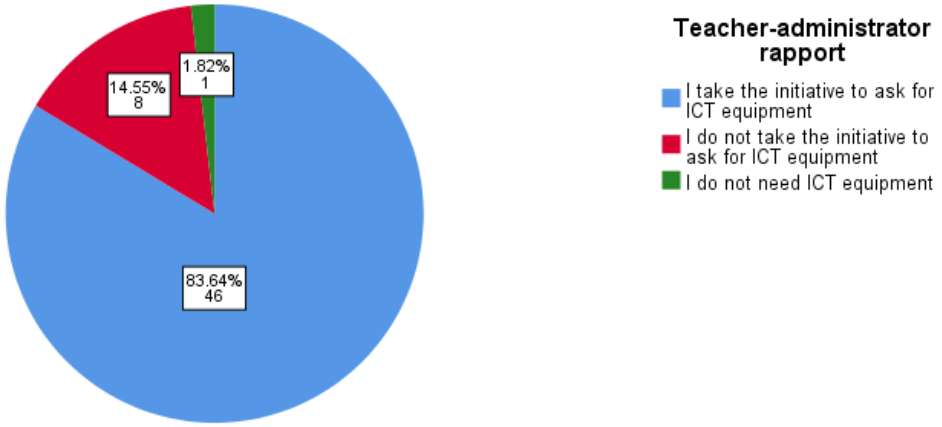
5.1 Teacher -Administrator Rapport about ICT Settings

Three survey responses probe the engagement teachers entertain with administrative staff in terms of providing for technology-enhanced classrooms. In this respect, respondents were asked to tick one the following options:

- I take initiative to ask the administration to provide for technology-equipped classrooms (e.g., data show, interactive board, etc.)
- I do not take the initiative because it's the administration's duty to provide for technology-enhanced classrooms.
- I do not need ICT equipment in my classroom to do a better job.

As demonstrated in chart 4, the majority of respondents (83.64%) take initiative to ask the administration for ICT equipment. This is to convey that they assume their roles as ICT leaders in terms of providing for learning environments that promote technology-enhanced learning. Conversely, A minority of respondents (14.55%) did not show readiness to ask for ICT equipment. From another scale, only one respondent (1.82%) expressed lack of interest in using ICT in the classroom. This is indeed indicative of the widespread awareness about the importance of ICT integration in education.

Chart 4: ***Teacher- Administrator Rapport about ICT Equipment***



A close look at participants' level at using ICT tools reveals an astounding result about their ICT leadership. Contrary to expectations, the lack of proficiency at using ICT equipment does not impede teachers from soliciting them. As illustrated in table 2, 100% of respondents who are novice users (either below average or poor) of the interactive board still take the initiative to ask the administration for ICT equipment. In the same breath, the majority of teachers who are either average (80%) or poor (100%) at using the data show convey the same positive attitude (table 3)

Table 2: ***ICT Leadership vs Level at Using the Interactive Board***

		Interactive Board					
		Excellent	Good	Average	Below average	Poor	Total
I take the initiative to ask for ICT equipment	Count	6	22	10	4	4	46
	% within interactive board	75.0%	88.0 %	71.4%	100.0%	100.0 %	83.6%

Table 3: ***ICT Leadership vs Level at Using the Data Show***

		Data Show				
		Excellent	Good	Average	Poor	Total
I take the initiative to ask for ICT equipment	Count	20	17	8	1	46
	% within data show	87.0%	81.0%	80.0%	100.0%	83.6%

5.2 Face-to-Face Vs Virtual Teacher-Parent Rapport

In this part of the survey, the study examines the relationship between teachers and parents. Accordingly, teachers were asked whether or not they reach out to parents to get them involved in the learning process of their children. Additionally, inquiry was made about the nature of communication (direct and/or virtual) between teachers and parents. In this regard, respondents were asked to opt for one of the following options:

- I establish face-to-face contact with parents to discuss students' learning.
- I establish virtual contact with parents to discuss students' learning.
- I establish both face-to-face and virtual contact with parents to discuss students' learning.
- I do not communicate with parents, but the administration does.

As demonstrated in chart 5, survey findings display significantly diverging results in terms of teachers' attitude towards communication with parents. Statistics show that nearly half of the respondents (47.27%) establish face to face contact with parents; conversely, only (14.55%) of teachers keep regular virtual communication with parents along with face-to-face contact. From another scale, a significant portion of teachers (38.18%) do not connect at all with parents. It is also worth mentioning that none of the respondents confine themselves to virtual contact with parents.

Chart 5: ***Face-to-Face Vs Virtual Teacher-Parent Rapport***

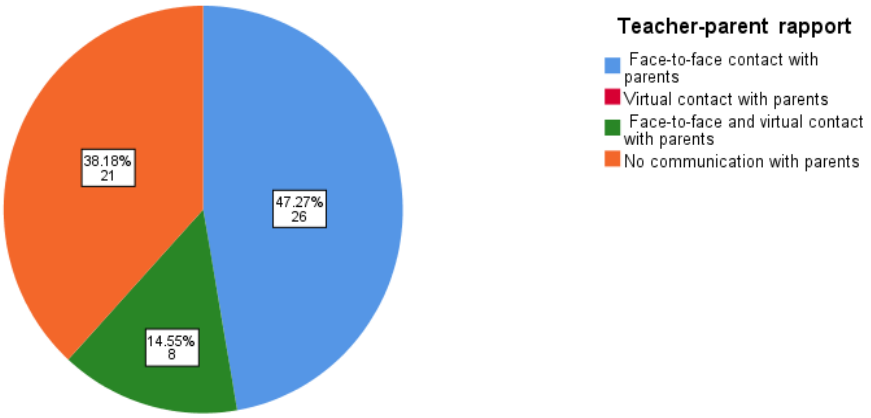


Table 4 reveals a significant correlation between teachers' age and their rapport with parents. In fact, there is an ascending relationship between teachers' maturity and their willingness to establish direct communication with parents. For instance, all teachers who are aged over 59 reach out to parents compared to (7.7%) of young teachers (between 20 and 29) who do so. The same interpretation applies to the descending symmetry between participants' age and their unwillingness to communicate with parents. For example, none of the participants aged 50 or older is reluctant to get in touch with parents compared to nearly two thirds (69.2%) of young teachers (between 20 and 29) who actually are.

Table 4: ***Age Vs Virtual Teacher-Parent Rapport***

		Age					
		21-29	30-39	40-49	50-59	Over 59	Total
I establish face to face contact with parents	Count	1	5	12	6	2	26
	% within age	7.7%	31.3%	70.6%	85.7%	100.0 %	47.3%
I establish both face to face and virtual contact with parents	Count	3	2	2	1	0	8
	% within age	23.1%	12.5%	11.8%	14.3%	0.0%	14.5%
I do not communicate with parents	Count	9	9	3	0	0	21
	% within age	69.2%	56.3%	17.6%	0.0%	0.0%	38.2%
	Count	13	16	17	7	2	55
	% within age	100.0%	100.0 %	100.0 %	100.0%	100.0 %	100.0 %

An investigation of participants' teaching experience boils down to the same conclusion. As illustrated in table 5, the great majority of veteran teachers with over 21 years of teaching experience have a positive attitude towards communicating with parents compared to a minority (9.1%) of novice teachers (less than 6 years of teaching experience) who actually do. On a different scale, higher percentages of respondents who are disinclined to

communicate with parents relate to new or inexperienced teachers (72.7%) whereas none of the teachers with more than 20 years of experience expressed the same attitude.

Table 5: ***Teaching Experience Vs Virtual Teacher-Parent Rapport***

		Teaching Experience					
		0- 5	6-12	13-20	21-25	Over 25	Total
I establish face to face contact with parents	Count	1	8	13	2	2	26
	% within teaching experience	9.1%	36.4%	76.5%	100.0%	66.7%	47.3%
I establish both face to face and virtual contact with parents	Count	2	4	1	0	1	8
	% within teaching experience	18.2%	18.2%	5.9%	0.0%	33.3%	14.5%
I do not communicate with parents	Count	8	10	3	0	0	21
	% within teaching experience	72.7%	45.5%	17.6%	0.0%	0.0%	38.2%
	Count	11	22	17	2	3	55
	% within teaching experience	100.0 %	100.0 %	100.0%	100.0%	100.0%	

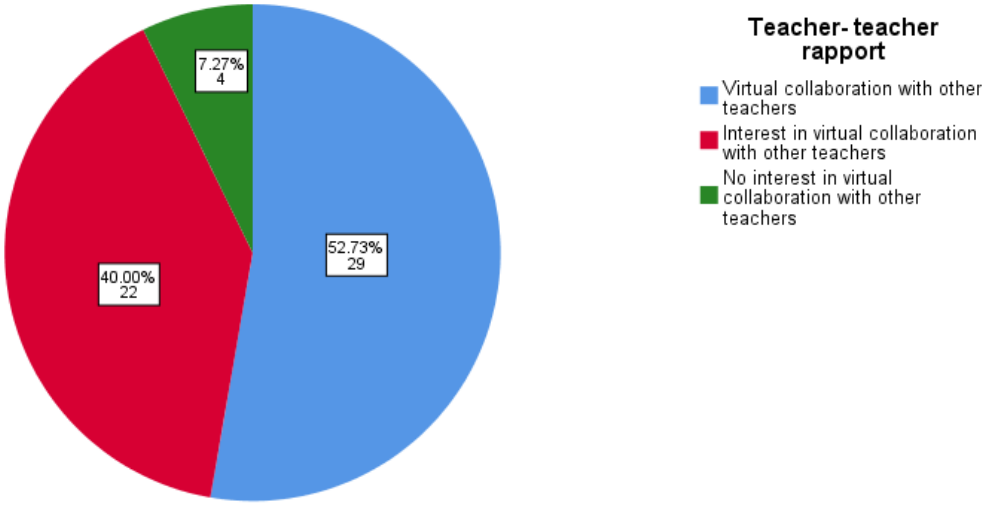
5.3 Teacher-Teacher Rapport Using Technology

This section of the survey investigates the teacher-teacher relationship in terms of ICT collaboration. In this respect, questions focus on whether or not teachers establish online contact with their colleagues as well as their willingness to share and exchange technology- enhanced experiences and practices with them. Respondents were requested to tick one of the following three options:

- I virtually collaborate with other teachers and share technology-enhanced activities and resources (e.g., Weebly, Google Sites, Padlet, Symbaloo, etc.)
- I do not, but I am willing to collaborate with other teachers and share experience and comments about technology use
- I am not interested in virtual contact with other teachers.

Chart 6 reveals a striking feature about teachers' perspectives of ICT collaboration. As a matter of fact, nearly half of the respondents (52.73%) actively collaborate online with their colleagues. Furthermore, more than a third of them (40%) adopt a positive posture on the matter. Conversely, only a minority (7.27%) are indifferent to virtual collaboration with their peers.

Chart 6: ***Teacher-Teacher Rapport Using Technology***



Putting the age variable under scrutiny discloses a similarity between teacher-parent rapport and teacher-teacher rapport in terms of survey results. In fact, just like in the case of their relationship with parents, teachers' maturity plays a decisive role in determining their ICT collaboration with their colleagues. As illustrated in table 6, the older the participants are, the higher the percentages of ICT collaboration. For instance, 85.7 % of the respondents aged between

50 and 59 virtually collaborate with other teachers compared to only 30.8 % of respondents aged between 21 and 29. By contrast, 23.1% of teachers aged between 21 and 29 expressed their indifference to virtual collaboration with their peers whereas none of the participants that are aged 40 and over holds the same posture.

Table 6: *Age Vs Virtual Teacher- Teacher Rapport*

		Age					
		21-29	30-39	40-49	50-59	Over 59	Total
I virtually collaborate with other teachers	Count	4	9	10	6	0	29
	% within age	30.8%	56.3%	58.8%	85.7%	0.0%	52.7%
I do not, but I am willing to collaborate with other teachers	Count	6	6	7	1	2	22
	% within age	46.2%	37.5%	41.2%	14.3%	100.0%	40.0%
I am not interested in virtual contacts with other teachers	Count	3	1	0	0	0	4
	% within age	23.1%	6.3%	0.0%	0.0%	0.0%	7.3%
	Count	13	16	17	7	2	55
	% within age	100.0 %	100.0%	100.0%	100.0%	100.0%	100.0%

An investigation of teachers' teaching experience boils down to the same judgement. In fact, table 7 shows an ascending correlation between teachers' expertise and their positive attitude towards ICT collaboration. In other words, the more experienced teachers are, the higher the percentages of ICT collaboration are. For instance, only 36.4 % of respondents with less than 6 years of teaching experience establish virtual contact with their colleagues while higher percentages are found among more experienced teachers. On the other hand, higher percentages of ICT collaboration evaders (9.1%) are tracked among inexperienced teachers while none of the teachers with more than 12 years of teaching experience have the same attitude.

Table 7: *Teaching Experience Vs Virtual Teacher- Teacher Rapport*

		Teaching Experience					
		0- 5	6-12	13-20	21-25	Over 25	Total
I virtually collaborate with other teachers	Count	4	12	11	1	1	29
	% within teaching experience	36.4%	54.5%	64.7%	50.0%	33.3%	52.7%
I do not, but I am willing to collaborate with other teachers	Count	6	8	5	1	2	22
	% within teaching experience	54.5%	36.4%	29.4%	50.0%	66.7%	40.0%
I am not interested in virtual contacts with other teachers	Count	1	2	1	0	0	4
	% within teaching experience	9.1%	9.1%	5.9%	0.0%	0.0%	7.3%
	Count	11	22	17	2	3	55
	% within teaching experience	100.0%	100.0%	100.0%	100.0%	100.0 %	100.0%

Mastery of internet web skills is another factor that highly impacts teacher's attitude towards ICT collaboration. Indeed, a closer look at table 8 reveals a significant correlation between respondents' levels at using the internet and ICT collaboration with their colleagues. At one scale, the more proficient teachers are at using the internet, the higher the percentages of ICT collaborators. For example, 73.3% of excellent internet users virtually connect with other teachers as opposed to just 40% of internet users with an average level who do so. From another scale, higher percentages are noticed among less proficient internet users who are willing to collaborate online with their peers. In this respect, 50% of average internet users expressed their eagerness to be ICT collaborators. Finally, it is worth mentioning that none of the excellent internet users is unwilling to establish virtual contact with other teachers.

Table 8: ***Internet Web Skills Vs Virtual Teacher-Teacher Rapport***

		Internet Web Skills			
		Excellent	Good	Average	Total
I virtually collaborate with other teachers	Count	11	14	4	29
	% within internet web skills	73.3%	46.7%	40.0%	52.7%
I do not, but I am willing to collaborate with other teachers	Count	4	13	5	22
	% within internet web skills	26.7%	43.3%	50.0%	40.0%
I am not interested in virtual contacts with other teachers	Count	0	3	1	4
	% within internet web skills	0.0%	10.0%	10.0%	7.3%
	Count	15	30	10	55
	% within internet web skills	100.0%	100.0%	100.0%	100.0%

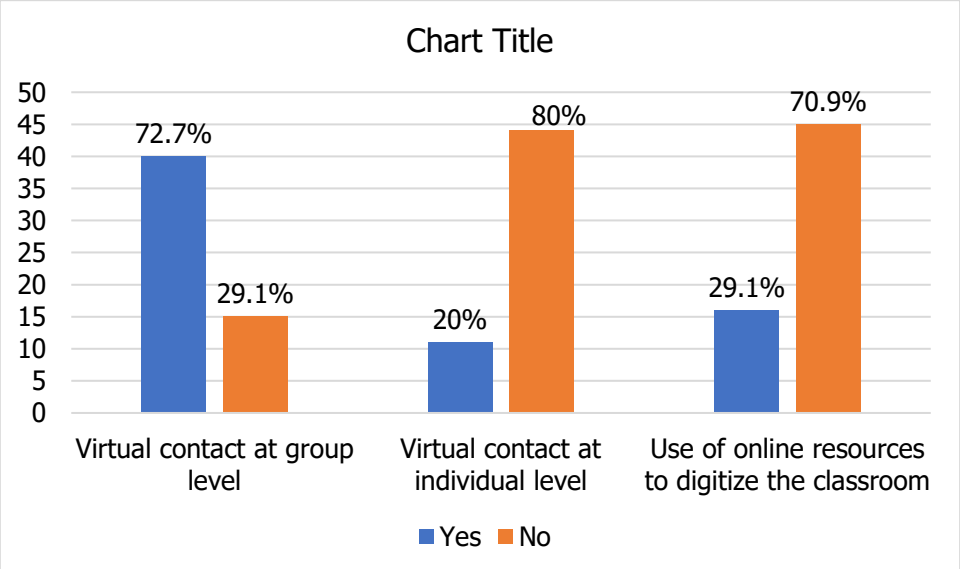
5.4 Teacher-Student Rapport Using Technology

Concerning the relationship between teachers and their students, the study explores the use of mobile applications and online resources by teachers to communicate with their students both collectively and individually. It also inspects teachers' exploitation of online platforms to promote authentic virtual learning. In this respect, participants in the survey were provided with the subsequent 'check-all-that -apply' statements:

- I use mobile apps and/or other online resources (WhatsApp, Edu blogs, etc.) to communicate with students at group level (e.g., assignments, worksheets, etc.)
- I use mobile apps and/or other online resources (WhatsApp, Edu blogs, etc.) to communicate with students at individual level (e.g., correcting assignments, giving personal feedback, etc.)
- I exploit online platforms to organize online content, deliver authentic web- experiences to students (Google Classroom, Symbaloo, Padlet, Diigo, etc.)

As illustrated in chart 7, survey statistics yield distinctive results in terms of teacher-student relationship using technology. As a matter of fact, out of 55 participants, 40 respondents (72.7%) communicate virtually with their students at whole-class level. Conversely, only 11 teachers (20%) establish virtual contact with individual students. Concerning the use of online resources to enhance authentic learning, the majority of teachers (70.9%) do not rely on technology to digitize their teaching practices and promote online learning.

Chart 7: ***Teacher-Student Rapport Using Technology***



A study of participants' age informs about the significant role of teachers' maturity in determining their positive attitude towards virtual communication with students at collective level. As shown in table 9, about half of the teachers (53.8%) aged between 21and 29 use mobile apps and online resources to communicate and exchange information with their classes. The percentages of teachers who have the same behavior significantly go higher as we consider higher age categories (i.e., teachers aged (30-39), (40-49), and (50-59)).

Table 9: ***Age Vs Teacher- Student Virtual Contact at Group Level***

			Age 21-29	30-39	40-49	50-59	Over 59	Total
Teacher-student virtual contact at group level	No	Count	6	3	4	1	1	15
		% within age	46.2%	18.8%	23.5%	14.3%	50.0%	27.3%
	Yes	Count	7	13	13	6	1	40
		% within age	53.8%	81.3%	76.5%	85.7%	50.0%	72.7%
Total		Count	13	16	17	7	2	55
		% within age	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Similar to age, teaching experience is another feature that impacts teachers' stance on online communication with their classes. As table 10 displays, respondents with better teaching experience are generally more willing to virtually reach out to their classes. For instance, about half of respondents (54.5%) who have been teaching for less than 6 years have online virtual classes compared to 72.7% and 88.2% of teachers who have between (6-12) and (13-20) years of teaching experience respectively.

Table 10: ***Teaching Experience Vs Teacher- Student Virtual Contact at Group Level***

			Teaching Experience 0- 5	6-12	13-20	21-25	Over 25	Total
Teacher-student virtual contact at group level	No	Count	5	6	2	1	1	15
		% within teaching experience	45.5%	27.3%	11.8%	50.0%	33.3%	27.3%
	Yes	Count	6	16	15	1	2	40
		% within teaching experience	54.5%	72.7%	88.2%	50.0%	66.7%	72.7%
Total		Count	11	22	17	2	3	55
		% within teaching experience	100.0%	100.0%	100.0%	100.0%	100.0%	100.0 %

In terms of gender, while the same number of female and male respondents (20) establish virtual contact with their classes, female participants constitute the great majority in terms of percentages of positive answers (table 11). In fact, 95.2% of female teachers communicate online with their classes compared to 58.8% of male teachers.

Table 11: ***Gender Vs Teacher- Student Virtual Contact at Group Level***

			Gender Male	Female	Total
Teacher-student virtual contact at group level	No	Count	14	1	15
		% within gender	41.2%	4.8%	27.3%
	Yes	Count	20	20	40
		% within gender	58.8%	95.2%	72.7%
Total		Count	34	21	55
		% within gender	100.0%	100.0%	100.0%

On the other hand, both male and female teachers didn't show the same enthusiasm in terms of virtual individual contact with their students (table 12). Even more strikingly, the majority of female respondents (90.5%) once again had a negative response compared to 73.5% of male respondents.

Table 12: ***Gender Vs Teacher- Student Virtual Contact at Individual Level***

			Gender Male	Female	Total
Teacher-student virtual contact at individual level	No	Count	25	19	44
		% within gender	73.5%	90.5%	80.0%

	Yes	Count	9	2	11
		% within gender	26.5%	9.5%	20.0%
Total		Count	34	21	55
		% within gender	100.0%	100.0%	100.0%

Teacher's maturity is another variable that influences teacher-student virtual communication at individual level. In this respect, a relatively constant decrease in the percentages of negative answers is noted as we move up the scale of teachers' age categories (table 13). For example, all respondents that are aged between 21 and 29 deny virtual individual contact with their students. In contrast, a significant drop of negative responses (57.1%) is tracked among teachers that are aged between 50 and 59.

Table 13: ***Age Vs Teacher- Student Virtual Contact at Individual Level***

			Age 21-29	30-39	40-49	50-59	Over 59	Total
Teacher-student virtual contact at individual level	No	Count	13	14	11	4	2	44
		% within Age	100.0%	87.5%	64.7%	57.1%	100.0%	80.0 %
	Yes	Count	0	2	6	3	0	11
		% within Age	0.0%	12.5%	35.3%	42.9%	0.0%	20.0 %
Total		Count	13	16	17	7	2	55
		% within Age	100.0%	100.0%	100.0%	100.0%	100.0%	100. %

Teachers' online communication with individual students is also affected by their level of expertise. In fact, the higher their teaching experience is, the lower the rates of negative responses are. For example, an investigation of table 14 reveals that all participants who have been teaching for less than 6 years adopt a negative attitude towards online individual contact with their students. Nonetheless, numbers go down as teachers gain more experience. Thus, only half of the respondents who have between 21 and 25 years of experience still maintain the same posture.

Table 14: ***Teaching Experience Vs Teacher- Student Virtual Contact at Individual Level***

			Teaching experience 0- 5	5-12	13-20	21-25	Over 25	Total
Teacher-student virtual contact at individual level	No	Count	11	18	12	1	2	44
		% within teaching experience	100.0 %	81.8 %	70.6%	50.0%	66.7%	80.0%
	Yes	Count	0	4	5	1	1	11
		% within teaching experience	0.0%	18.2 %	29.4%	50.0%	33.3%	20.0%
Total		Count	11	22	17	2	3	55
		% within teaching experience	100.0 %	100. %	100.%	100.%	100.0 %	100.0%

When it comes to the exploitation of online resources to promote teaching practices, survey statistics lead to relatively divergent results compared to virtual contact with students.

In this respect, putting participants' age under scrutiny shows that younger teachers are more willing to digitize their teaching. As an illustration, table 15 shows that the older teachers are, the more reluctant they are to deliver their lessons in digital forms. For instance, nearly half of the respondents (46.2%) that are aged between 21 and 29 use technology in their teaching as opposed to only 14.3% of respondents who are aged between 50 and 59.

Table 15: ***Age Vs Use of Online Resources to Promote Authentic Learning***

			Age 21-29	30-39	40-49	50-59	Over 59	Total
Use of online resources to promote authentic learning	No	Count	7	12	13	6	1	39
		% within age	53.8%	75.0%	76.5%	85.7%	50.0%	70.9%
	Yes	Count	6	4	4	1	1	16
		% within age	46.2%	25.0%	23.5%	14.3%	50.0%	29.1%
Total		Count	13	16	17	7	2	55

% within age	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In the same vein, teaching experience do not seem to promote the concept of the digital classroom. As a matter of fact, higher percentages of positive responses are recorded among less experienced teachers (table 16). To give an example, nearly half of novice teachers (less than 6 years of experience) use digital platforms in their practices compared to none of the teachers (between 21 and 25 years of experience).

Table 16: ***Teaching Experience Vs Use of Online Resources to Promote Authentic Learning***

			Teaching experience					
			0- 5	5-12	13-20	21-25	Over 25	Total
Use of online resources to promote authentic learning	No	Count	6	16	13	2	2	39
		% within teaching experience	54.5%	72.7%	76.5%	100.0 %	66.7%	70.9%
	Yes	Count	5	6	4	0	1	16
		% within teaching experience	45.5%	27.3%	23.5%	0.0%	33.3%	29.1%
Total		Count	11	22	17	2	3	55
		% within teaching experience	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0%

In the same line of thought, teachers' mastery of internet skills highly impacts their eagerness to incorporate digital sources in their teaching practices. As table 17 demonstrates, while none of the respondents affirms to have a poor or below average level at using the internet, higher percentages of positive responses are scored among excellent (40%) and good (30%) net users compared to those with an average level (10%).

Table 17: ***Internet Web Skills Vs Use of Online Resources to Promote Authentic Learning***

			Internet Web Skills			
			Excellent	Good	Average	Total
Use of online resources to promote authentic learning	No	Count	9	21	9	39
		% within Internet web skills	60.0%	70.0 %	90.0%	70.9%
	Yes	Count	6	9	1	16
		% within Internet web skills	40.0%	30.0 %	10.0%	29.1%
Total		Count	15	30	10	55
		% within Internet web skills	100.0%	100.0 %	100.0%	100.0 %

6. DISCUSSION

Findings of the present study yield significant conclusions about the roles of EFL High school teachers in the private sector in Marrakesh as ICT leaders and ICT collaborators.

As far as teacher- administrator relationship is concerned, the vast majority of respondents either take initiative or show readiness to reach out to the administration to provide for ICT equipment in the classroom. Surprisingly, the lack of proficiency at using ICT tools, namely the interactive board and the data show is not a hinderance since high rates of positive responses are noted among poor and average users.

Concerning their relationship with parents, nearly half of the teachers favor in-person communication whereas only a minority of them establish online communication with parents. Maturity and professional experience of participants are two factors that promote direct communication between the two sides. On the downside, about a third of the respondents do not communicate at all with parents.

In terms of ICT collaboration with other teachers, the great majority of respondents adopt a positive attitude towards the matter with more than half of them who actively net-connect with their peers. Once again, maturity and professional experience play a decisive role in boosting ICT collaboration between teachers. Equally important, mastery of internet skills also encourages teachers' to virtually reach out to their colleagues.

As to teacher-student rapport using technology, most participants, especially females, get in touch with their classes at group level. Not surprisingly, higher rates of positive responses are recorded among older and more experienced teachers. In contrast, not many respondents, females in particular, expressed the same eagerness in communicating individually with their students. In fact, less than a third of them cater for their students' individual needs using the

internet. The awareness of the merits of online individual contact with students is nurtured as teachers grow in age and expertise.

From another scale, most teachers do not resort to technology to digitize their courses. Contrary to previous results, older and more experienced teachers are more reluctant to push themselves out of their comfort zone and experiment with new digital platforms of teaching. Another reason is the lack of proficiency at using these digital resources.

Based on the above conclusions, the following recommendations are proposed:

- Educational decision makers should account for ICT leadership in teacher education programs. That way, teacher trainees will have clear insights into the roles they are expected to play vis-a-vis other educational parties, namely administrators, parents, and of course students.
- Prospective teachers should be trained on the use of ICT tools as part of their teacher education program. In the same vein, adequate training should be provided for in-service practitioners to improve their ICT skills.
- Demo-lessons and pedagogical workshops should also target the exploitation of internet-based platforms in EFL teaching.
- Pedagogical supervisors should encourage teachers to enroll in e- communities that boost ICT collaboration between EFL practitioners. This will open up the chance to exchange successful e-teaching experiences and promote fruitful discussions on the use of ICT in EFL teaching.

7. CONCLUSION

The current study aims to probe attitudes of EFL teachers in terms of ICT leadership and ICT collaboration as defined by the International Society for Technology in Education (ISTE). Particular attention is given to teachers' rapport with other educational stakeholders (administrators, parents, teachers, and students). Accordingly, the study adopts a quantitative research design in which data was collected using a questionnaire that comprised demographic information about the participants as well as closed questions about the subject matter. Participants represent the EFL community of teachers who work in private high schools in Marrakesh, Morocco. Study results reveal the existence of a satisfactory rapport between teachers and administrators about ICT setting albeit the lack of teachers' proficiency at using ICT tools. Concerning their relationship with parents, the study shows that teachers, to a large extent, favor face-to face over virtual communication. It also pinpoints that maturity and professional experience are two factors that have a decisive effect on their attitude. From another scale, research indicates that most teachers either actively collaborate with their colleagues using technology or are willing to do so. Once more, maturity and professional experience along with mastery of web skills are key to their positive attitude. As to online communication with students, the great majority of participants, particularly females, older and more experienced teachers, net-connect with their classes. On the other hand, much remains to be done to promote online individual communication with students, especially among female respondents. The same comment applies to teachers' exploitation of online resources in their teaching methods. Their reticence is particularly due to the reluctance of older and veteran teachers to break out of traditional teaching patterns and innovate their practices. Therefore, there is an urgent need to incorporate ICT leadership in teacher training programs. In the same mode, ICT collaboration as well as the use of ICT tools and online platforms should constitute an integral part of the professional development of EFL practitioners in Morocco.

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