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ORIGINAL RESEARCH ARTICLE

Living under occupation: Palestinian teachers' experiences and their digital responses

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Unlike most neighbouring countries in the world, teachers in the occupied territories of Palestine face extraordinary conditions and challenges. These are due to the continued Israeli occupation. This article reports on a large-scale survey of Palestinian teachers. It explores the impact of the occupation on the professional lives of the teachers around Nablus, and indirectly on their students and communities, and on their digital responses. Follow-up focus groups explore their feelings, experiences and reactions, providing greater insights into this complex and troubling situation. The article underpins further work on appropriate digital literacy. It does however also provide an insight into the challenges to rigorous fieldwork outside the mainstream of the developed North and specifically in a region of conflict and occupation.

Keywords: Palestine; teachers; occupation; digital

Introduction

The education systems in Palestine (meaning the West Bank, just to be clear, and embracing Palestinian National Authority (PNA), the United Nations Relief and Works Agency (UNRWA) and others such as missionary, charitable or private) are educationally comparable to many others in the region, and in fact, UNRWA is the best. There are of course institutional and organisational differences; there are cultural and ethnic differences; there are pedagogic and educational differences. What makes Palestine profoundly different, however, is that education and life in general take place within the context of ongoing occupation by Israeli armed and police forces and by periodic security 'spikes', shootings, riots, curfews, lock-downs, unrest and disturbances. We can review these later, and we are not discounting the political and security situations that afflict the education systems in, say, Lebanon, Syria, Gaza or even Jordan and Egypt.

Our over-arching research topic in this article is the impact of the Israeli occupation and the security situation on Palestinian teachers, and specifically the role and potential of digital technology in ameliorating this impact on their professional lives and responsibilities. The ambition was to move beyond research that might have as easily been undertaken in Egypt, Turkey or Jordan, in looking at teachers' digital

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and professional lives, and ask about the specifically Palestinian dimension under the impact of this occupation and disruption. Our research questions are thus the following: 'what is the impact of the Israeli occupation of Palestine on the professional lives of teachers?', 'how are they using digital technologies to deliver learning and support learners?', and 'how does this challenge the ideas of digital literacy'?

At all phases of this research, there were obstacles and barriers that would not be encountered in, say, Jordan, Morocco or Qatar. Some of these have been due to culture and capability, in the sense that the standards, practices and expectations of European research are less established in Palestinian universities. Others are a direct consequence of the occupation, in terms of access to people, resources and support due to checkpoints, airport checks and travel restrictions that impeded contact between researchers and participants. In addition, for both the British and Palestinian authors, it has often been difficult to find truthful, neutral and unemotive words for the text of the article even without the technical challenge of translation. In fact, it is not a problem of translation, rather it is embedded in the essence of the situation. Quotes clearly use the words they use, as best as we can translate them, and these are methodologically sacrosanct; but *martyr*, *occupation* and *separation wall* are the norm for Palestinian students, teachers and academics and so they have clearly flavoured our text. One additional issue is the current Palestinian boycott of academics employed in Israeli universities. This means that articles, such as this one, authored or co-authored by Palestinian academics, cannot cite Israeli academics. These are all clearly complex issues, explored elsewhere at greater length, for example, in the context of critical geopolitics (Harker 2011).

Background

The occupied territories of Palestine, often referred to as the West Bank, reached their current form over a number of decades dating back to the war of 1967 (Efrat 2006), but must be seen in the context of the history of the Palestinian people since the establishment of the state of Israel or even decades before (Tessler 2009). At present, the Israeli administration divides the occupied territories into three areas, often called zones. Only Area A, the enclave around Ramallah, has the appearance of normalcy, although not during any *intifada* (Peretz 1990) nor during what UNRWA describes as 'security spikes'. Nablus, the focus of the current work, is however very different, being in 'Area C, in which full Israeli military and civilian control prevails, form 18.1 percent of the overall land space of the Occupied Territories'. (Handel 2009:180). It is one of the largest cities in occupied Palestine, described as 'the West Bank's northern population hub', 'also one that has seen some of the roughest action, given the stringent resistance to Israeli occupation that simmers there' (Thomas *et al*. 2010:323).

There are three obvious expressions of Israeli control and occupation; firstly, the separation fence, started in 2007, built on appropriated land, based solely on Israeli perceptions of security (Efrat 2006, p. 107); secondly, the settlements, compounds for Israeli citizens, built in strategic positions, regarded as illegal by most of the international legal opinions (Barak-Erez 2006; Falk and Weston 1991; Darweish 2010); and thirdly, the apartheid roads, separate and autonomous road systems, one serving the settlements and connecting them back to Israel, the other, back roads and

minor roads, for Palestinians (Efrat 2006, p. 80). There has however also been a steady relentless appropriation of Palestinian land and property over decades:

> The Israeli government instituted a series of mandatory laws and regulations to 'legalise' the acquisition of Palestinian refugees' land and property after 1948, while preventing them from returning to their land. Palestinian land was deemed 'absentee property' through the Absentee Property Law (1950) and control of this land was passed to the state or quasi-state entities. Under this law, Palestinian refugees were considered 'absentees' and internally displaced Palestinians were regarded as 'present absentees'.

Any account of the physical realities and the lived realities of Palestinians happens (Allen 2008) in the context of the apparent Israeli (or Zionist) mission over the last half-century; the literature is, however, sparse and the language is emotive (Veracini 2013), but the Zionist position, dating back more than a century, is encapsulated in:

> A land without people for a people without land.
>
> (Atran *et al*. 2007:1040)

For Palestinians, those non-people on the land in question:

> The outcome of the barriers is that the space becomes divided into small cells, and passage between them is nearly impossible.
>
> (Handel 2009, p. 184)

over which they can no longer walk or roam (Shehadeh 2010), or farm or visit.

As a final piece of background, this is a companion piece to an earlier work (Traxler 2018) that outlined the need to define a digital literacy curriculum for the Palestinian community. It made the point that the dominant conceptions of digital literacy spring from a largely European context, in terms of politics, culture, infrastructure, institutions and educational sectors. An authoritative, but not definitive, European definitions said:

> Digital Literacy is the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyse and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this process.
>
> (Martin 2005)

Subsequent publication seems to have moved on from 'digital literacy' to 'digital competences' (e.g. Ferrari 2013), but an analysis by experts (Janssen *et al*. 2013) implicitly reinforces the sense that our concerns about digital literacy are inherited by the digital competences literature.

In a specific Palestinian context, these concerns about digital literacy, and by extension with digital competences, include the following:

- The focus on the individual with no mention of the community and the culture
- The lack of recognition of the hegemony of global English or of American digital technology, or of the synergy between them
- The role of digital space and digital identity for a community and culture with severely constrained its physical space and its physical identity
- The need to express digitally widespread trauma, loss and pain in circumstances where meeting or demonstrating may be prohibited or problematic.

Methodologically, the previous article addressed digital literacy from the top-down, generalising the ideas of digital literacy in order to embrace the Palestinian context. This article starts from bottom-up, with the specifics of Palestinian experiences, and should be complemented with details of infrastructure, the employment market, digital habits, intangible cultural heritage, and so on, in order to reach a definition from which a curriculum could be derived.

The Palestinian context includes the impact of the occupation on schools and children where, for example, 'extensive exposure to violence was associated with higher levels of posttraumatic distress' (Abdeen *et al.* 2003, p. 1), which produced a loss of agency and executive function (Buckner and Kim 2012) and which left schools as violated spaces (Akesson 2015). This is our current focus.

Earlier studies suggest a pervasive state of confusion in the Palestinian education system (Najah and Davies 2002), so although the Palestinian Educational Initiative,[1] dating from pre-2005, talked of 'pedagogical techniques empowered by technology that catalyzes socio-economic development' and hoped for 'quick wins' in the first 6 months followed by the first phase of mainstream implementation, there is still little or no evidence beyond projects funded externally. One funded by the Belgian government[2] piloted e-learning in schools but did not address wider issues of digital learning except in some accompanying leaflets,[3] one of which did mention digital literacy. A recent official Palestinian report, *Improving the Quality of Education Programs for Higher Basic Stage – Social Sciences Major*, now sadly off-line, discussed digital literacy in teacher development but in high-level terms derived from UK sources.

Methods

The research methods were based around a large-scale quantitative survey to identify major trends and features in the professional and digital lives of teachers followed by qualitative research, namely focus groups, to explore the motivations and attitudes behind these trends and features.

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[1] http://www.pei.gov.ps/english/introduction.html

[2] https://medium.com/@enabel/e-learning-curriculum-in-palestinian-primary-and-secondary-education-b59f474a4dad

[3] https://open.btcctb.org/en/PSE/2175/97/u/digitalizing-education-six-policy-papers-on-the-use-of-ict-in-education.html

The survey

The quantitative aspect posed a large number of questions grouped around personal and professional attributes, digital competencies and resources, security issues and the school environment. The survey questionnaire was peer-reviewed by two mother-tongue Arab speakers and piloted by teachers as follows:

- School A behind the separation wall: 12 teachers
- School B behind the separation wall: 15 teachers
- School C in the rural area: 13 teachers.

Forty surveys were distributed; 30 teachers responded to the survey, whilst six surveys were incomplete and were excluded. Therefore, the total response was 24 participants. As a consequence:

- Q1a - If 'yes' how much extra time does this add to your daily journey?, was coded as {0= living in the same place, 1 = '10–25 min',...
- Q5 - How do you, your colleagues and your students stay in touch with the school when there are closures or restrictions? Coded as SMS, Email, Social Media, Others
- Other open questions such as Q9a, Q10a and Q11a were considered as open questions and analysed based on the responses. For example, the question – Are you able to access all the free websites, downloads, podcasts and other Internet resources you need for your professional activities as a teacher? Yes/No – If 'no', why not?

The survey was amended accordingly and went live, having over 560 participants, self-selected, mostly responding online; those responding on paper transcribed onto spreadsheet for analysis with the others. The findings of the quantitative phase led to questions and uncertainties that were fed into the qualitative phase, looking for explanations, examples and reactions.

The qualitative phase

The focus group protocol evolved from the survey responses in addressing those topics where responses were unexpected or counter-intuitive, where responses showed behaviour but not motivation and where further examples would be illuminating. Time with each group was limited, and the focus of the project was the impact of the security situation and the place of digital technology in the response to that situation so this was the filter employed. The focus group protocol was developed accordingly, using best practice from the US Office for Victims of Crime (www.ovc.gov).[4]

Focus groups were chosen as an approach to understand lived experience of teachers from their daily life practice (Hennik 2014). Powell and Single (1996) defined this as a group of individuals assembled by researchers to discuss and comment on the topic from personal experience. Kitzinger (1994) defined this as a form of group interview using communication between researcher and participants to obtain information.

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[4] https://www.ovc.gov/pubs/victimswithdisabilities/pdf/ProtocolforInterviewsGroups andMeetings.pdf

The latter was not our view, either in terms of merely obtaining information or in terms of precluding communications amongst participants. Our facilitators were briefed accordingly. The focus groups used group interaction as part of the method (Kitzinger 1995), distinguished by 'the explicit use and fostering of the group interaction' as research data.

The interactive aspect of the focus groups provided an opportunity for participants to explore different points of view and reconsider their own ideas and understandings as the group setting was characterised by dynamism and energy (Cameron 2005). The focus groups enabled the researchers to concentrate time and resources on the main topics; the results of the quantitative survey were sometimes ambiguous or misleading; and the statistical associations required clarification, elaboration or 'salvaging' (Powell and Single 1996).

The researchers ran the sessions (Krueger and Casey 2009) in order to provide a relaxed environment where they could share and contrast their ideas and opinions about technology used to mitigate the impact of Israeli procedures on the Palestinian educational system. Two male researchers facilitated the discussion. One of the researchers managed the discussion by providing prompts, whilst the second facilitator was the note-taker.

The researchers use criterion sampling to choose the primary teachers, selecting cases meeting predetermined criteria (Patton 2002:238) and a range of variation in backgrounds (Korstjens and Moser 2018). The main criteria were experience with digital technology and teaching outside of their hometown. Participants were from each teaching topic, giving different perspectives (Creswell & Clark 2017).

The facilitators welcomed the teachers, discussed the protocol and purpose, and explained the objectives, etiquette and procedure. Each session was 60–70 min and was audio-recorded. Participants were told about the recording, were asked for permission and informed that recordings would only be used for analysis. No individuals would be identified. Participants signed a consent form. No one would have access to the data apart from the researchers, their anonymity would be preserved and the data would be destroyed after publication. The final transcripts were returned to the participants to edit or add new ideas to the discussion. No one added anything..

The first step of data analysis was transcription. One researcher transcribed the entire recording. Another researcher checked accuracy of the transcription by comparing a portion of the transcripts against a recording. The accuracy of the transcription was 100%; participants and researchers were all mother-tongue Arabic speakers.
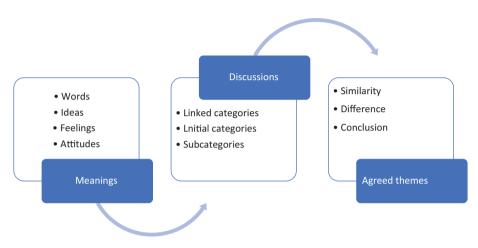
The team then developed a protocol for data analysis as the road map. The researchers started the process by immersion in the data (Ulin *et al.* 2005) for complete familiarity, for anything ambiguous or contradictory, for bias in the language of the facilitator, for neutrality in the prompts and for unexpected findings.

Four researchers then conducted an exhaustive coding of the interview transcripts. Each researcher read the transcripts (Ulin *et al.* 2005) and then the data were analysed and coded (Marshall and Rossman 2011). The analysis unit was the 'unit of meaning'; sentences and words with similar meanings were identified and labelled with codes (Graneheim and Lundman 2004). This coding process allowed the researchers to interpret segments, especially those where teachers were using different concepts with more than one meaning like 'prisoner' and 'detained'.

An inductive approach based on Grounded Theory was used to build the themes and subthemes (Strauss and Corbin 1996). After coding, clusters of items of data were identified and then the pattern of each cluster was identified which facilitated

identifying themes in the data. Each main theme then had two or three subthemes, the team agreeing on the subthemes. The frequency of each theme was vital for choosing it as a subtheme between different groups and researchers. The researchers agreed to include three main themes of information in their report:

1. Expected data (translate into themes and subthemes)
2. Strong quotation to support it each theme (similarity and differences)
3. Unexpected data (anything counter intuitive).

The following chart described the data flow for each researcher and between different researches:

To ensure the validity and reliability of the study, the researchers discussed the themes and subthemes before approving the final themes. To ensure reliability and validity of data analysis, each researcher worked alone in the beginning and then formed two groups where two of them participated in collecting data and were highly involved in the collected data through conducting the focus group, while the other two had no idea about the collected data. Comparing the themes between the two groups was a method for ensuring reliability and objectivity. The team who did not participate in conducting the focus group considered more details than the other. The initial agreement between the researchers was 80%. The researchers discussed and negotiated in terms of the difference in coding. After discussion and agreement, the inter-rater reliability among the coders was 86%.

Findings and correlations

The survey

The sample, anonymous, was secondary and elementary teachers, fairly balanced in terms of gender (female 282, male 280), in terms of those living in towns (280) and villages (282). Most (426) had a bachelor's qualification. The age distribution was broadly distributed across 25–30 years (94), 31–35 years (166), 36–40 years (127), 41–45 years (75) and >45 (101). The vast majority (428) were teaching in a village and most (326) lived in the same place as they taught.

There was a high correlation between a school's IT resources and the IT competency of the respondent. One could explore the nature of any causality being inferred. The cluster of IT competencies were all strongly correlated with email as probably the best specific indicator of general IT competency. The fact that this is a self-report may mean that these different elements merely represent an underlying self-image. There were no obvious and systematic external reasons to skew self-report in one direction or another but presumably, there might be some internal ones, such as respondent's self-image, advocating for more resources or identifying with a specific cultural or political position. A latent variable was derived from these responses but did not correlate with experience, only very weakly with age and not with gender.

Qualifications were a good indicator of IT competency, meaning the higher the qualification (though there were only a handful of doctorates), the better the IT competency. Locality, that is village versus town, was however not a good indicator of IT competency meaning that for example, urban schools did not attract or develop especially IT savvy teachers. The same was true of gender and age; neither was a good indicator of IT competency (except for the >45 s, for whom the competency dropped off).

For most (237), the separation wall added to the daily commute by an extra 10–25 min (62), 30–45 min (81), 35–40 min (81) or 1 h and more (94). Most teachers reported their schools had a website (292) and almost all (495) a text messaging system. The vast majority (548) used a mixture of phone calls, text messages, email and social media pages to stay in touch with the school, students and colleagues when there were closures or restrictions and most (348) used online resources, discussions or support when security restrictions prevented attendance at school. For the majority (372), security restrictions meant their school was closed unexpectedly, events and meetings had to be cancelled without warning (423), and students could not always attend school (257). The questions about the impact of the security were not particularly well correlated meaning that if the impact was reported in one aspect, it was not necessarily well reported across the other two, or if not reported in one, it might still be reported across one or two of the others. On the one hand, self-report across none or all three may just indicate a general awareness of lack of it, whilst on the other hand partial reports might indicate a more nuanced awareness of impact. This lack of correlation seemed a worthwhile topic to explore in the focus groups since survey questions could only scratch the surface of this complex and emotive issue.

The survey gives an outline of the situation and the resources within which the Palestinian teachers operate and the ways digital literacy might form a conceptual framework that would analyse the available digital resources and restrictions and the opportunities, necessities and challenges facing individuals and communities.

The responses asking about various Arabic digital resources were highly correlated with each other and suggest an awareness of Arab culture or identity in education set against a paucity of Arabic digital resources. This however did not correlate with the various experiences of the security situation, nor with age, gender, qualifications or experience.

Qualitative research

The researchers invited 50 teachers from different background, different schools and different districts, from different cities and districts with different teaching experience and different specialisations. Thirty-one teachers (14 male, 17 female) participated; all groups were mixed. They were organised into six focus group sessions at An-najah University. They were secondary and elementary teachers, in constant contact with

the children. They worked from geographically diverse schools. Some taught in camps schools, sites of the most violent confrontations, some in villages, where inter-city travel required crossing Israeli checkpoints, and others in city schools. In addition, some were teaching in schools on the line of contact with the occupation forces. Some were living in areas under Israeli control and had to travel daily to their schools in other areas and pass through an electronic portal. Their teaching experience varied from 1 year to more than 15 years. Some had experienced the incursion of their school by the occupation forces, some were arrested and imprisoned, and some noted the daily suffering of children who suffered trauma due to invasion of their houses or the arrest of a brother or father, and in other cases, the death of the father or a close relative to the family. Some participants focused on obstructed access to the schools through checkpoints near schools or the school's location in Area C, whilst others talked of different ways in which human rights were being violated. The findings can be broadly grouped as follows.

Israeli occupation – a threat to the educational process

These are some of the comments from the transcripts, some sentences or paragraphs, some fragments, presented in a loosely thematic fashion.
On the daily trip to school:

> While I was on my way to school, I came across a check-point so I went to the Education Office, in Nablus, to attend classes there, but I was asked to go back to school. I could not get there because I was stopped by the Israeli soldiers for many hours.

And

> The daily checkpoints between the school and the house, involuntary returning from the checkpoint to the house, the late arrival of the school, the separation wall and standing in front of the gates for hours.

Participants pointed to the violation of the right to freedom of movement caused by daily barriers between school and home and by the separation wall and gates:

> The Za'tara[5] checkpoint is closed and we arrive late to school.

whilst another participant pointed out that:

> The school is located behind the wall where there is a gate that opens and closes while we stand waiting for the mercy of the soldier to open it and close it.

The Israeli soldiers can ask the teachers to return to their homes, whilst:

> We are a school for a Bedouin area behind the wall. The gate is opened with a certain hour. It is not always allowed for students or teachers to enter. Some of them are asked to move by car and they stop them for several hours.

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[5] Close to the south of Nablus.

Other participants emphasised on the impact of occupation on teachers' life in the classroom:

> Teachers are afraid when the Israeli soldiers passing by the school; that affects my performance thus reduces the quality of teaching.

> Preventing students from reaching the school, the destruction of schools such as the Red Khan School, in the Jerusalem area.

> The Israeli army's entry into the school leads to violence and squabbles which affects the learning environment.

> Lack of focus due to fear and long vigilance due to the soldiers' presence in the camp, psychological anxiety among students, lack of ambition and lack of hope.

> The presence of the tank in front of the school and the denial of access to the school were a major reason for our inability to focus on education as the time was wasted by talking about it amongst students.

The constant insults from Israeli soldiers and the constant stopping at checkpoints resulted in feelings of threat. It had an impact on their psychology, especially the female teachers. A group of teachers pointed to the continuous denial of access to the school exhausting them and exposing them to fear:

> Arriving late to school affects my emotions, it causes exhaustion and it affects my performance as a teacher.

Participants drew the attention to the extent to which education offered to students was affected by the Israeli occupation procedures. The continued closures, and the absence or delays of teachers, led them to focus on content in order to finish the course, without giving sufficient time for discussion and collaborative work:

> We focus only on what is presented in the book without offering any project-based activities or any type of active learning in order to be able to finalise textbooks in time.

A theme raised by the teachers was the current focus of teachers, parents and students on learning and teaching for test purposes and not for learning and future development. One participant said:

> Students go to schools only to get certificates and not concentrating anymore on learning itself.

Another group referred to exceptional measures that negatively affected the quality of education, such as:

> Merging classes with each other's because some teachers cannot arrive and therefore changing lessons to accommodate integration.

The participants agreed there was a decline in the quality of education due to the occupation:

> The demolition of schools, the rise in the number of students per class due to the reluctance of parents to send their children to distant schools, the preoccupation of students talking about what happened with them at night when the army entered their home or their unforgettable memories when their school was bombed, instead of concentrating on the lesson and on their education.

Most of the groups pointed out to the absence of ambition and hope:

> Children used to have a dream of becoming engineers, doctors and lawyers. Nowadays, they want to dropout from school to work in Israel to earn money or they want to become policemen.

One teacher talked about his own experience, saying that instead of graduating in 4 years, he graduated in seven. He pointed to the hidden illiteracy due to frequent closures, social promotion that is learning social support and respect, and the inability to complete the curriculum due to curfews and obstruction of school activities. This reduced students' interest in preparing for classes, leading to dropout and an uneducated generation.

In addition, many participants, especially males, pointed to the cancellation of school trips and extracurricular activities, fearing that students would be suspended or fearing for their lives, especially in the most threatened areas. For example:

> A school trip was cancelled this week due to accidents and closures, which caused the students to complain.

The Ministry of Education issued a decision to cancel school trips for fear of students' contact with the soldiers.

Students were denied access to some Palestinian towns, especially Jerusalem, meaning that many have never visited Jerusalem throughout their lives. They would need a permit to enter Jerusalem. This is an attempt by the Israeli occupation to prevent them from knowing the capital of Palestine. The inability to visit historic Palestine leads to the students' alienation from their history and past, isolated in cities like large prisons:

> Not only do the students, but teachers also suffer from a long-term suspension at checkpoints, on the gates of the Apartheid Wall and on the doors of the school.

But also:

> The inability to make school trips to visit Palestinian places, which in practice impedes the effective learning and knowledge of the geography and history of the country.

There were also remarks about:

> Deleting the curricula related to national subjects, the school's administration deals with the occupier by neutralizing them, demolishing schools and detaining

teachers and students, which hinders the educational process, the areas adjacent to the Israeli army or the settlers and the continuous stopping of the students back and forth from the army hinders their concentration and delays their arrival to school and home as in Red Khan School, and the teacher's failure to arrive school on time.

whilst

Changing the educational content in the curriculum, for example words such as occupation, Palestinian state, Jerusalem as a capital.

along with

Contradictions in education, for example, are we independent? The answer is no. Then, why do we celebrate Independence Day?

We could imagine tactical or technical responses to these challenges drawn from, for example, the established repertoire of mobile learning (Traxler 2008), but our quest here is more fundamental, namely to see these in the context of a definition of digital literacy that embraces the social, cultural, political and technical context.

Human rights violations in general and children's rights in particular

The parents' fear for children often contributed to the disruption of children from school by 'trying to protect their lives from being murdered by the occupation'. One respondent mentioned:

Their school is exposed daily to risk; children are shot and exposed to tear gas agents thrown at the door of the school on the main street, which terrifies students, parents and teachers.

One teacher pointed out that having a martyr in the school does not only affect everyone negatively for a long time because:

having an empty chair with a martyr's photo on it and the refusal of students to sit on the chair in order to commemorate and respect the martyr, leads all the students to continuing talking about him and remembering the incident.

Everyone also suffers from instability due to uncertainty about returning home safely after school. Many children were exposed to scenes of violence that resulted in an increase of their feelings of fear and anxiety leading to involuntary urination, lack of school focus, lack of ambition and lack of hope. As one of the participants said:

The student suffers from a psychological crisis and sleeps next to his family in Al-Shweikeh because one of his relatives was martyred and the soldiers come every night to search the house which led to the child's fear of everyone at school and the constant going to the bathroom. Moreover, during the art lesson, the student usually draws bombs and weapons, Saying that he dreams of machine guns ... and always expresses his sadness of the demolition of his relatives' house ...

The art lesson had become a lesson for discharging students' feelings; most of the drawings of grades 1 to 4 express their fear and anxiety and portray the violent scenes that the students face from the Israeli soldiers. Especially for the students from the camp, the repeated night-time invasions into the camp contributed to insomnia of children so that they are unable to concentrate in school because of insufficient sleep, the increased fear and the constant talks on the topics with their colleagues and teachers. Many teachers pointed out:

> At least 10 minutes a day is wasted on talking about the student's stories. So, for example, we were delayed two days ago because a decision was made by the ministry to delay the class for half an hour because a house of a martyr's family will be blown up and demolished and the place will be filled with journalists.

The arrest of parents at night affected students, especially female students, and they come to school in a bad condition, instability and fear, which will lead to lack of concentration during lessons. The same applies to the martyrdom of a family member. Despite the sympathy of the school community, it becomes the focus of everyone's talk for a time and affects the lessons and the educational process.
Sadly,

> The imprisonment of the head of the family affects the stability of the family negatively, involuntary urination of students who faced a soldiers' invasion into their homes, school violence as a result of the violence from occupation.

> Absence from school to visit family members in prisons such as mother, father and its effect on the student's psychological health, lack of financial resources because of the occupation, and the limited education to indoctrination[6] because of the absence of activities.

Also,

> The mother sleeps in prayer clothes because the soldiers might invade the house while the family is sleeping, the arrest of students at a school in one of Jenin's camps,

Participants reported that children are exposed daily to psychological, physical and verbal violence in different ways, either directly or through the scenes that they watch on television, especially those from the Gaza Strip. Parents are constantly warning their children to pay attention. Children may be:

> Arrested in case of an attack on the school

These remarks show the need for a conception of digital literacy that exploits digital technologies to enhance resilience and preserve well-being.

The role of technology in mitigating the effects of occupation
Participants were asked about the role of technology in mitigating the impact of the damage on education varied among the groups. Some focused on the existing process

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[6] Means 'learning by rote'.

and on how to employ E-school,[7] Facebook and other social media, others referred to the individual initiatives to improve communication with students and parents, but most focused on the fact that technology contributed to improving communication with students through emails and Facebook. Most also pointed out the challenges and obstacles they face when employing technology in learning, especially at a time of crisis. Ideas and experiences from participants included:

> The recorded classes and Facebook groups can help a lot, using emails to communicate and distribute the curriculum, using YouTube or Google to find educational materials, limited educational resources in Arabic, limited interactive sites, using 3D and create interactive images in biology.

and

> The use of drama to mitigate the psychological effects of the occupation, groups on Facebook for students to communicate, the use of e-school to help students in learning, the use of interactive books between students helps in emergencies, the use of data projectors in class, the lack of educational resources in Arabic, the use of YouTube is important in the classroom but the language barrier sometimes hinders understanding.

But

> Students excelling us with their computer skills, but we should take advantage of it positively, to focus on learning for the sake of it and not for the grades by increasing the motivation of students and their parents to learn. We should also focus on cooperative learning to minimize the impact of division by encouraging cooperation.

Most agreed on creating communication groups via Facebook to send information, educational materials, instructions and work papers to the students, and many of them, especially the teachers, pointed to the possibility of making introductory videos in cities that students cannot visit and presenting them to students. They also mentioned that it is possible to prepare educational videos and send them to parents to follow up with their children to ensure that they learn during closures:

> You can make electronic visits to areas that we cannot access and interview people remotely and ask them questions.

They referred to students and teachers creating videos to document repeated attacks on students and schools using cell phones to broadcast on the Internet for the world. So, the student and teacher act like journalists to document attacks.
Many also referred to the e-school:

> Using an e-school helps students learn and communicate.

> There is a page on Facebook for each school where we communicate together.

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[7] E-School is an official website funded by the Ministry of Education, founded 5 years ago to support communication among teachers, students and parents. Students' grades and comments on their behaviour are entered onto their records.

In case of an emergency, we can prepare lessons on videos and send them to parents to broadcast to students from home.

Learning through E-lessons, communication between teachers, students and parents through technology facilitates learning in an emergency.

Some participants pointed to the importance of using the technology available at schools to improve the learning process, such as the use of the Smart Village, downloading educational videos, communicating with students and parents electronically, as well as the use of electronic learning bags, like the experiment in Ramallah, and email. All participants stressed the importance of Facebook groups to communicate.

Challenges and difficulties noted by participants

Participants agreed on a number of challenges to the use of technology in learning and to the contribution in reducing the disruption of the educational process by the occupation. Most pointed to the limited infrastructure, such as the lack of full Internet access:

limited possibilities for technology but some people don't have an internet connection at home. Or they don't have a laptop or a computer.

Many also pointed to the lack of open educational resources and educational videos in Arabic and the need to translate them, which created an obstacle to the use of these resources in learning. In some areas, power cuts are an obstacle.

There has been a clear disparity in schools' infrastructure. Some schools were fully equipped, and some had limited resources. This explained the differences between the views of the participants in the groups.

Some schools have high potential and others have nothing and need maintenance.

An important point, raised during the discussion, was the lack of training for teachers and the inability of some older people to deal with technology or the desire to learn about it. One group of teachers raised the problem of the social environment of some female teachers and the unwillingness of their parents to have a virtual presence with others, whilst many teachers, especially male teachers, preferred to communicate directly with students and did not want to communicate electronically.

Conclusions

There is little evidence of definitions or discussions of digital literacy within the Palestinian education system, certainly none that specifically and concretely address the Palestinian situation. Accepting loosely European definitions or discussions is problematic because:

- These were individualistic, whereas the challenges facing our participants were common across their communities and united them as a culture.
- These ignored the hegemony of the English language and American digital technologies, whereas our participants recognised the need for digital resources in

Arabic and were denied physical access to their own their geography and their history.
- These ignored the capacity of digital technologies to enhance the identity, movement, contact and community in Palestinian communities that were physically diminished and restricted by the occupation.
- These failed to respond to the trauma, loss and pain experienced by our participants or by their students and their parents.

Although there are specific digital responses to the various challenges and pressures that our participants describe, these would be piecemeal and reactive hence our argument for using this and similar data to define a digital literacy that embraces and addresses all aspects of Palestinian situation and then forms the basis for a Palestinian curriculum.

This article makes a significant contribution to our understanding of the daily conditions of teachers and learners in the occupied Palestinian Territories and the place of digital learning in ameliorating the outrages and stresses that confront them. Teachers are clearly using digital technology to support the progress and well-being of their students but without an over-arching and appropriate definition of digital literacy to underpin, systematise or extend their work. A definition of digital literacy with the capacity to embrace criticality and resistance, to recognise the limitations of infrastructure and access, and to embrace all the sectors and demographics of Palestinian culture would be a worthwhile starting point for a more systematic and appropriate digital response to the challenges of teachers and learners.

Returning to our research questions, and drawing together the two sets of data, we see an overview of the objective impact of the Israeli occupation on teachers' professional lives, their professional environment and the various ways in which digital technology is woven into these, complemented by vivid personal examples, feelings and consequences of the occupation. There is no doubting the emotional and educational damage involved or the tenacity and commitment of the teachers in exploiting digital technology to mitigate these. This article seeks to make some wider sense of these.

We also see the logistical challenges to what elsewhere would be a conventional mixed methods research design and specifically draw attention to the impossibility of any kind of neutral language and methodological detachment. As readers and writers, researchers and participants, we are all involved. This then is the challenge to build more robust and trustworthy accounts of situations where values and emotions are highly charged and where we have obligations to ensure these accounts have impact and visibility.

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