



# Moroccan High School EFL Teachers' Attitudes and Anxiety on Using Microsoft Teams Platform

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**Abstract:** The world has witnessed major changes in delivery modes in education due to the COVID-19 pandemic. Being no exception, Morocco declared a full lockdown in March 2020, and this resulted in the use of online platforms to cope with the new situation. The platform that was adopted by the Moroccan Ministry of Education was Microsoft Teams (MT). Hence, the current paper investigated Moroccan high school EFL teachers' use of the platform accounting for their age, gender, anxiety, and attitudes towards the platform. For this aim, a questionnaire adapted from Computer Anxiety Rating Scale (CARS) by Heinssen et al. (1987) was distributed to 171 EFL teachers working in different public high schools belonging to the academy of Casablanca/Settat. Results revealed that the participants' attitudes towards the usability of the platform were negatively associated with their years of experience, and their general anxiety and power and control of the platform negatively affected the time they spent on the platform. The findings imply that anxiety should be taken into consideration as an integral component in further implementation of technology in education.

**Keywords:** COVID-19; Microsoft Teams; attitudes; EFL teachers; anxiety; online teaching

## 1. Introduction

During the COVID-19 lockdown in Morocco, the education system shifted from conventional in-person teaching to emergency remote teaching (ERT) (Hodges et al., 2020). The authors specify that the major difference between ERT and online learning resides in that ERT provides a temporary surrogate plan to in-person classes in times of crisis, as is the case with the COVID-19 pandemic. The latter was transformative in education and has deeply impacted the conventional modes of delivery across the world, and ERT was the immediate substitute for in-person classes (Melnik et al., 2020). In a crisis-induced change, such as the situation with the COVID-19 pandemic, the willingness to integrate eLearning tools in teaching is generally affected by the attitudes teachers hold towards these tools (Lockton & Fargason, 2019). In Morocco, like other parts of the globe, the move to eLearning platforms instead of face-to-face modes of delivery was abrupt and teachers in all educational cycles were not well prepared to cope with the new situation. The platform that was widely used in high schools, like other sectors of education in Morocco, was Microsoft Teams (MT) since it was the official platform endorsed by the Moroccan Ministry of Education.

The choice of this platform by the Ministry of Education emanates from the usability and the different options it offers in the teaching process. The MT platform is built on Microsoft 365 and Office 365 (Microsoft, 2021). The Ministry of Education has an enterprise version of the platform and students

as well as teachers can access it through their Office 365 accounts. Unlike other social media platforms, MT is a professional online platform built up mainly for pedagogical purposes. MT is built on the principle of teamwork offering different channels that enable the use of the platform to the fullest (Mercurio & Merrill, 2021).

The platform offers many functionalities, including video conferencing, sharing documents and presentations, chatting, instant messaging, and uploading digital lessons and videos (Microsoft, 2021). Providing both synchronous and asynchronous modes of teaching, the platform enables teachers to access a large range of possible options to interact with their students and deliver their lessons. These two types of online teaching suit different types of learners. While older ones can benefit from the asynchronous mode of delivery to tune their learning to their own pace, younger ones depend more on guided instruction, and assisted synchronous learning would benefit them more (Di Pietro et al., 2020). For the asynchronous mode of delivery, teachers can upload their courses in different formats (video recordings, Word documents, PDFs, PowerPoint slides, etc...) and share them with their students. For the synchronous mode of interaction, the platform has different features that permit live streaming, video conferencing as well as private and group chats to facilitate direct interactions with students. Class meetings can be scheduled, and students can have their course schedules as in in-person classes. The platform can also be used to assess students' progress as it offers online quizzes. Teachers can design tests, and students are automatically graded based on predefined rubrics.

This year, with the country is still affected by the pandemic, different schools have taken different measures, including blended teaching, to ensure a good delivery of courses. The use of technology in education has received much attention over the last few years. Findings regarding the implementation of technology in education led to recognizing the use of ICT to have a positive impact on students' achievements. Hew and Brush (2007), for example, stress that the integration of technology positively impacts the development of learners and their results in school. Other scholars (Liu et al., 2002; Macaruso & Rodman, 2011) regard the use of technology in education as an advantage to young learners' biliteracy and bilingualism.

Meanwhile, teachers are a central component in the process of education. The implementation of such eLearning tools is highly linked to their attitudes and levels of proficiency to manipulate such technology (Gialamas & Nikolopoulou, 2010; Nikolopoulou & Gialamas, 2009; Alkamel & Chouthaiwale, 2020; Al-Saggaf et al., 2021). However, research revealed discrepancies in teachers' attitudes towards the implementation of such tools in their teaching (Granić & Marangunić, 2019), and different factors were found to impede teachers' use of technology in general, such as lack of time, support, and resources (Egbert et al., 2002), and misbeliefs and phobia about the technology itself (Warschauer, 2000). There is evidence in the literature that technology use is affected by age, anxiety, attitudes, and access to that particular technology (Poynton, 2005), and the anxiety exhibited towards the use of such technology can influence teachers' use of it (Baloglu & Cevik, 2009). Meanwhile, other studies assert that teachers' attitudes towards ICT differ among teachers of different age groups, gender, and teaching experience (Tou et al., 2019).

In the past few decades, the use of technology in education has taken much consideration and has been considered as an additional asset to the development of this sector. Different models have been developed to investigate the adoption and use of ICT tools. The Technology Acceptance Model developed by Davis (1989) and expanded by Venkatesh & Davis (2000) is among the most widely used technology-based models. This model includes different constructs, among which is users' attitude towards technology.

This variable is considered a determining factor in ICT application in classrooms (Albirini, 2006; Abbitt, 2011; Hermans et al., 2008). Technology users' positive attitudes are reported to boost its implementation in the classroom (van Braak et al., 2004). Other studies showed that teachers' attitudes towards the use of technology are affected by different factors. For instance, Pamuk & Peker (2009) concluded that age plays a determining factor in teachers' use of technology and that older ones tend to be more technophobic. In the same vein, Ursavas and Karal (2009), in their study on the factors affecting teachers' use of computers, found that teaching experience is a determining factor in teachers' attitudes towards computers and that teachers with less teaching experience develop more computer anxiety and negative attitudes towards computers.

Another variable affecting teachers' acceptance and implementation of technology is anxiety. In broad terms, anxiety towards technology can be explained as feelings of unfamiliarity with the use of technology (Hakkinen, 1994), or fear and negative emotions experienced while dealing with technology (Chang, 2005). In the last few years, research has been more interested in how anxiety affects teachers' use of technology. In the literature, different interchangeable elements, such as emotions, behavior, and environment (Sanders, 2003) along with different cognitive and psychological factors (Desai & Richards, 1998) have been found to affect anxiety towards the use of technology.

Anxiety encompasses multi-dimensional constructs (Havelka & Beasley, 2011) and combines psychological aspects, operational components, and sociological factors (Baloglu & Cevik, 2009; Beckers et al., 2007). An increasing number of studies (Baloglu & Cevik, 2008; Matthews & Shrum, 2003; Sang et al., 1995) found that high levels of experience with technology culminate in low anxiety and more tendency to use technology at work, while a study by Rahimi & Yadollahi (2011) concluded that the use of computers at work is negatively associated with computer anxiety (i.e. teachers who exhibit high levels of anxiety with computers are less likely to use them in teaching).

Other variables such as age and years of work experience were also found to be linked to ICT anxiety and attitudes. In a study conducted by Guillén-Gámez & Mayorga-Fernández (2020) to investigate Spanish tertiary education teachers' attitudes towards the use of ICT in education, the researchers found that teachers' age negatively predicted their attitudes towards the use of ICT at work. Similarly, Pamuk & Peker (2009) observed that older teachers tend to hold negative attitudes towards the implementation of technology in their job due to high levels of anxiety, whereas other findings revealed that teachers with more years of experience develop positive attitudes (Tou et al., 2019; Ursavas & Karal, 2009), but are less inclined to implement technology in their teaching (Rahimi & Yadollahi, 2011). However, a study conducted by Ziad (2016) to investigate secondary education teachers' attitudes towards the use of ICT in El Jadida province in Morocco showed that teaching experience is negatively associated with teachers' attitudes towards technology. However, no significant correlation between teachers' attitudes towards ICT and their gender has been found (Ahmed et al., 2020; Semerci & Aydın, 2018; Ziad, 2016), and no association was also found between teachers' use of ICT and their age (Semerci & Aydın, 2018).

Meanwhile, factors affecting individuals' anxiety towards the use of technology were associated with experience with and degree of use of technology (Tekinarslan, 2008). The researcher found that individuals exhibit low degrees of anxiety towards the use of technology if they use it more frequently. Also, a significant positive association was reported between teachers' ICT experience and their levels of anxiety (Semerci & Aydın, 2018). The researchers concluded that teachers with more ICT experience tend to be less anxious about the use of technology.

Research on the association between teachers' use of technology and their attitudes and levels of anxiety has tended to focus more on computers and other ICT tools (e.g., Ahmed et al., 2020; Baloglu & Cevik, 2008; Li & Ni, 2011; Matthews & Shrum, 2003; Pamuk & Peker, 2009; Rahimi & Yadollahi, 2011; Sang et al., 1995; Semerci & Aydın, 2018; Taghizadeh & Hasani Yourdshahi, 2019; Tou et al., 2019; van Braak et al., 2004; Zyad, 2016). However, little research has been conducted on how eLearning platforms, such as MT, are affected by these variables, especially in ERT. Hence, the present paper examined the effects of EFL teachers' attitudes and level of anxiety towards eLearning tools. Understanding the impact of such variables can provide more insights into the barriers and obstacles that impede the integration of these platforms as an integral component of the teaching process. With this in mind, the following research questions are addressed to guide the study:

1. To what extent do EFL teachers' attitudes towards the MT platform correlate to the time they spend on it?
2. To what extent does EFL teachers' anxiety towards the MT platform affect its use?

## 2. Material and Methods

The current study employed the quantitative research design since the data were collected through a questionnaire. The questionnaire comprised three parts. The first part was meant to collect demographic data. In this part, the participants were requested to specify their gender, age, years of experience, and the time spent on MT. Time spent on MT was assessed by giving the following options: never, less than one hour a week, 2 to 5 hours a week, 5 to 10 hours a week, and over 10 hours a week specified by respondents.

To evaluate the respondents' attitudes towards the MT platform, an attitude rating scale (ARS) assessing teachers' perception of the usability of the platform was developed. The instrument incorporates three sections aiming to identify the extent to which respondents feel that the platform is accessible, provides technical support, and allows good communication and control. The respondents rated themselves on a 5-point Likert scale ranging from *strongly disagree* to *strongly agree*. The alpha coefficient of the instrument was found to be .89, which is very significant.

To determine the levels of anxiety the respondents exhibited towards the platform, Computer Anxiety Rating Scale (CARS) (Heinssen et al., 1987) was used and adapted. CARS is a 19-item scale that asks participants to express how anxious (nervous) each of the items would make them in real-time of filling in the questionnaire. The participants rated themselves on a 5-point Likert scale ranging from *strongly disagree* to *strongly agree*, and the alpha coefficient reported by the developers for the scale was .87. The instrument was initially developed to measure individuals' interaction and perception of computers. In order to fit the context of the current study, CARS was adapted to integrate elements related to the use and perception of the MT platform.

Havelka and Beasley (2011) used factor analysis (principal components analysis approach with varimax rotation) to investigate the factor structure of CARS, which resulted in the emergence of four distinct factors including *General Anxiety towards Computers* (8 items), *Confidence in the Ability to Learn about Computers* (4 items), *Motivation to Learn about Computers* (3 items) and *Power and Control of Computers* (2 items). They retained only factors with eigenvalues greater than one in the model. Thus, to fit the context of the study, the CARS instrument and the factors identified by Havelka & Beasley (2011) were adapted to reflect anxiety regarding understanding how the platform works. The alpha coefficient of CARS in the current paper was found to be similar to that reported by Heinssen et al. (1987).

## 2.1 Participants

The participants were 171 high school teachers, including 93 males (54.4%) and 78 females (45.6%), working in different public schools in the region of Casablanca Settat in Morocco. Participants from both urban and rural areas were randomly selected (59.6% n=102 from urban areas and 40.4%, n=69 from rural areas). The questionnaire was prepared on google forms and sent to the participants through their personal emails.

## 2.2 Data Analysis

Once the data was collected from the Google Forms questionnaire, it was extracted in a Microsoft Excel document and then analyzed using *the Statistical Package for the Social Sciences* (SPSS) version 25. Descriptive statistics were utilized to extract demographic characteristics of the participants along with the time they spent on the MT platform. It provides measurements of mean values, standard deviations, and frequencies of these variables. Correlation techniques were also used to identify the type of relationship that existed between the participants' attitudes towards the platform and their personal characteristics, as well as between the levels of anxiety towards the platform and the time spent on it. Also, multiple linear regression tests were employed to predict EFL teachers' time spent on MT accounting for their levels of anxiety towards the platform.

## 3. Results

The participants in the study were 171 high school teachers working in different high schools in the region of Casablanca Settat. Their age varied from 25 to 60 years. 28.1% (n=48) were in the age bracket between 25 to 34, 38.6% (n=66) between 35 to 44, 19.3% (n=33) between 45 to 54, and 14% (n=24) between 55 to 60. From the sample, 54.4% (n=93) had from one to 7 years of experience, 21.1% (n=36) from 8 to 14 years, 8.8% (n=15) from 15 to 21, 10.5% (n=18) from 22 to 29 years, and 5.3% (n=9) over 30 years of experience.

The descriptive statistics of the ARS related to participants' attitudes towards the usability of the platform revealed that the mean of teachers' attitudes was 31.386 (SD=11.348) from a possible range of 10 to 50. This indicates that participants held rather a neutral view of the platform.

The correlation test using Spearman's rho. (see Table 1) revealed that only teachers' years of experience were negatively associated with their attitudes towards the platforms ( $r=-.215$ ,  $p=.005$ ). In other words, respondents with more years of experience tended to have a more negative attitude towards the platform. However, there was no significant correlation between the respondents' attitudes and their age ( $r=-.031$ ), gender ( $r=-.027$ ), or time spent on MT ( $r=.143$ ).

Table 1. Correlation between teachers' characteristics and attitudes towards MT

		Gender	Age	Years of Experience	Time spent on MT
Attitudes	Correlation Coefficient	-.027	.031	-.215**	.143
	Sig. (2-tailed)	.728	.691	.005	.063
	N	171	171	171	171

\*\* . Correlation is significant at the 0.01 level (2-tailed).

An analysis of individual components (accessibility of the platform, technical support, and communication and control) showed that only technical support and communication & control were negatively associated with teachers' years of experience ( $r=-.176$ ,  $p<.05$ ;  $r=-.220$ ,  $p<.01$  respectively) as Table 2 shows. This indicates that respondents with more years of experience regarded that the

platform did not provide good technical support and enough communication and control. However, the relationship between respondents' years of experience and their perception of the accessibility of the platform indicated no significant correlation ( $r=-0.068$ ).

Table 2. Correlation between individual components and teachers' years of experience

		Access	Technical Support	Communication & Control
Years of Experience	Correlation Coefficient	-.068	-.176*	-.220**
	Sig. (2-tailed)	.374	.021	.004
	N	171	171	171

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

The mean of the original CARS instrument validated by Heinssen et al. (1987) was 43.58 ( $SD=11.73$ ,  $n=270$ ). The developers of the instrument reported that any score below 31.85 indicates a low level of anxiety and any score above 55.31 indicates high levels of computer anxiety. Interestingly, the mean of the respondents of the current research was found to be 57.93 ( $SD=21.42$ ). The results obtained indicated that the respondents exhibited high levels of anxiety towards the platform.

To assess the relation between teachers' personal characteristics and their anxiety towards the platform, correlation and regression techniques were employed. The correlation test using Spearman's rho. indicated that respondents' anxiety towards the platform inversely correlated with only the time they spent on the platform ( $r=-.375$ ,  $p<.001$ ). Surprisingly, the relation with other variables was not statistically significant (see Table 3).

Table 3. Correlation between respondents' personal characteristics and anxiety

		Gender	Age	Years of Experience	Time spent on MT
CARS	Correlation Coefficient	.068	-.052	.101	-.375**
	Sig. (2-tailed)	.380	.501	.190	.000
	N	171	171	171	171

\*\* . Correlation is significant at the 0.01 level (2-tailed).

To predict teachers' time spent on the MT platform accounting for their levels of anxiety towards the platform, linear regression was calculated. The scores of the regression indicated that 11% of the variance in the time spent on MT can be accounted for by the CARS predictor ( $F(1,17) = 21.937$ ,  $p<.001$ ), and that levels of anxiety ( $\beta=-.339$ ,  $t=-4.684$ ,  $p<.001$ ) negatively predicted teachers' time spent on MT (see Table 4 & 5).

Table 4. Analysis of variance: Time spent on MT by CARS instrument

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	33.319	1	33.319	21.937	.000 <sup>b</sup>
	Residual	256.681	169	1.519		
	Total	290.000	170			

a. Dependent Variable: Time spent on MT

b. Predictors: (Constant), CARS

Table 5. Regression on the dependent variable: Time spent on MT by CARS

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.488	.469		9.558	.000
	CARS	-.707	.151	-.339	-4.684	.000

a. Dependent Variable: Time spent on Microsoft Teams

To have deeper insights on the factors affecting teachers' use of the MT platform, correlations and multiple linear regressions were calculated. The correlation test revealed that only two factors (general anxiety and power and control) were significantly associated with teachers' time spent on MT ( $r=-.403$ ,  $p<.001$ ;  $r=-.270$ ,  $p<.001$ ), while no statistical significance was found between time spent on MT and confidence to learn ( $r=-.080$ ), or motivation to learn ( $r=-.057$ ) (see Table.6). This indicated that respondents who exhibit general anxiety towards the platform and feel having less power and control over the platform tended to use it less.

Table 6. Correlation between participants' time spent on MT and factors affecting their anxiety

		General Anxiety	Confidence to Learn	Motivation to Learn	Power & Control
Time spent on MT	Correlation Coefficient	-.403**	-.080	-.057	-.270**
	Sig. (2-tailed)	.000	.298	.457	.000
	N	171	171	171	171

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Multiple linear regression was calculated to predict teachers' frequency of use of MT based on the general anxiety they exhibit towards the platform and the power & control they feel they have over the platform. Results indicated that 15.3% of the variance in the time spent on MT can be accounted for by the two predictors (general anxiety and power and control) collectively, ( $F(2,168) = 16.318$ ,  $p<.001$ ). Looking at individual contributors, the results revealed that only general anxiety ( $\beta=-.404$ ,  $t=-4.423$ ,  $p<.001$ ) negatively predicted high school teachers' frequency of use of the MT platform (see Table.7 & 8).

Table 7. Analysis of variance: Time on MT by individual factors

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.171	2	23.586	16.318	.000 <sup>b</sup>
	Residual	242.829	168	1.445		
	Total	290.000	170			

a. Dependent Variable: Time spent on Microsoft Teams

b. Predictors: (Constant), Power & Control, General Anxiety

Table 8. Regression on the dependent variable: Time spent on MT by the predictors: Power & Control, General Anxiety

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,233	.348		12.150	.000
	General Anxiety	-.713	.161	-.404	-4.423	.000
	Power & Control	.002	.133	.001	.014	.989

a. Dependent Variable: Time spent on Microsoft Teams

#### 4. Discussion

The results of the present study indicated that Moroccan EFL teachers' attitudes were inversely associated with their years of experience. This could be due to the fact that teachers with long years of experience may have developed negative attitudes towards technology and are reluctant to change since they have been relying more on traditional tools to deliver their lessons. Contrary to expectations, the current study does not support the findings of Tou et al. (2019) and Ursavas & Karal (2009), who found that teachers with less teaching experience develop negative attitudes towards ICT and computers, respectively. In fact, contrary to what they found, we discovered that teachers with more years of experience held negative attitudes towards the platform. Our findings corroborate those of Zyad (2016), who found that teachers with more years of experience hold negative attitudes towards

the use of ICT. It appears that lack of consistency with previous research can be attributed to the difference in the variables being studied. Ursavas & Karal's (2009) study focused on teachers' attitudes towards computers and Tou et al. (2019) investigated teachers' anxiety towards ICT in general, while the current research investigated high school EFL teachers' attitudes towards a particular platform (Microsoft Teams), a variable also investigated by Zyad (2016) in approximately the same population where our research was conducted. This may explain how our results were in agreement with those of Zyad (2016). Meanwhile, Davis (1989) maintains that users' perception of a particular technology's ease of use is a determining factor in their attitudes towards that technology. Henceforth, the reason for this rather contradictory result could be explained by the fact that since the MT platform is the official platform used by the Ministry of Education, teachers might have had previous experience or training on how to use it and thus develop more positive attitudes towards it. Still, further investigations are needed in this regard.

To explore some of the factors that may intervene in EFL teachers' use of MT, the CARS by Heinssen et al. (1987) was adapted and used to fit the context of the study. The findings of this study revealed that the participants exhibited high levels of anxiety towards the platform. The regression test showed that the time teachers spent on the MT platform can be predicted by their levels of anxiety. Precisely, teachers who exhibit high levels of anxiety tend to use the platform less. This suggests that anxiety is an intervening variable in teachers' acceptance and use of new technology in teaching. However, no significant correlation was found between teachers' personal characteristics, such as age, gender, and years of experience, and their frequency of use of MT. Apart from this slight discordance, our findings are confirmation of previous research which found that high levels of anxiety may act as an impediment to teachers' use and implementation of technology at work (Baloglu & Cevik, 2009; Rahimi & Yadollahi 2011), and there is no correlation between teachers' gender and their attitudes towards ICT (Ahmed et al., 2020; Semerci & Aydın, 2018; Zyad, 2016), or age and their use of ICT (Semerci & Aydın, 2018).

In the analyses of the individual factors that intervene in teachers' anxiety, *general anxiety* and *power and control* were found to predict teachers' time spent on MT. As Baloglu & Cevik (2008), Matthews & Shrum (2003), and Sang et al., (1995) suggest, high levels of experience with technology result in lowering teachers' anxiety and improving their tendency to use technology more at work. Also, the anxiety towards the use of technology at work is found to be associated with experience and degree of use of technology (Semerci & Aydın, 2018; Tekinarslan, 2008). Thus, the integration of the platform as an integral part of the syllabus may raise teachers' familiarity with it and hence may lower their levels of anxiety towards it.

## 5. Conclusions

This paper investigated how Moroccan high school EFL teachers' anxiety and attitudes towards MT affected their use and interaction with the platform. The evidence from this study suggests that EFL teachers' years of experience are inversely related to their attitudes towards the usability of the platform, and that anxiety plays a major factor in teachers' use and implementation of the platform in teaching. Despite slight discrepancies, our findings confirm previous research which establishes that anxiety is a determining factor in teachers' integration of technology at work. Our work clearly has some limitations. Nevertheless, we believe that our work could be a springboard for making anxiety an integral variable to be taken into consideration in further implementation of technology in teaching. This variable, as postulated earlier in the literature, is affected by emotions, behavior, and environment (Sanders, 2003) in addition to different cognitive and psychological factors (Desai & Richards, 1998). Henceforth, raising teachers' familiarity and experience with technology, in general, would lead to a smoother transition from conventional means of education to eLearning. We suggest that the use of



eLearning platforms, such as MT, in delivering lessons should be integrated into the syllabus, and that teacher trainings on the use of such tools are needed to raise their degree of familiarity and minimize their levels of anxiety. As mentioned earlier, anxiety is affected by other variables and a further investigation of these variables would provide deeper insights on how to boost teachers' confidence with technology.

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### Contribution

Conceptualization, Adil Youssef Sayeh and Hassane Razkane; Methodology, Adil Youssef Sayeh; Software, Adil Youssef Sayeh; Validation Adil Youssef Sayeh and Hassane Razkane; Formal Analysis Adil Youssef Sayeh; Investigation, Hassane Razkane; Writing – Original Draft Preparation, Adil Youssef Sayeh and Hassane Razkane; Writing – Review & Editing, Adil Youssef Sayeh and Hassane Razkane; Visualization, Adil Youssef Sayeh and Hassane Razkane.

### Conflicts of Interest

The authors declare no conflict of interest.

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