

Attitudes to e-training in an English language school

An investigation into factors that contribute to employees' perceived

satisfaction with online learning in an English language school.

A Case Study

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Abstract

As Learning and Development efforts are gaining more momentum, training and learning are also becoming more strategically important in companies. The relevance of strong training and development is briefly discussed in this study, whereas the focus is on two modes of learning - face-to-face and online. More specifically, this case study examines English teachers' attitudes to e-learning and face-to-face learning and offers some insights into the factors which contribute to their perceived satisfaction with training and their preferences in terms of the mode of learning - face-to-face or online. The research is quantitative and it entailed an online questionnaire distributed to teachers in an English school. A total of 34 respondents participated in the survey. The scale used in this research is a combination of two previously created surveys designed by Gherhes et al. (2021) and Hofmeister and Pilz (2020). The first part focuses on the employee preference for the mode of learning, whereas the second one examines attitudes to computer-based technologies and attitudes to e-learning. The results showed a strong preference for face-to-face learning in relation to online learning. The findings for attitudes demonstrated overall positive attitudes to both computer-based technology and elearning. Engagement, effort and the full return to face-to-face learning were also examined as factors that contribute to the satisfaction with the training.

Keywords: employee satisfaction, learning, training, training evaluation, learning preferences, English teaching sector

1 Introduction

1.1. Title

The working title of this research is: An investigation into factors that contribute to employees' perceived satisfaction with training and preferred mode of training in an English language school.

1.2. Rationale

The rationale for this research is to discover whether there is a difference between the level of employees' preferences with regards to face-to-face training or e-training in the English teaching sector. The research will also examine perceived satisfaction with both modes of training and examine whether positive attitudes towards computer-based technologies and towards e-learning result in higher perceived satisfaction with e-training programmes. The ongoing COVID-19 pandemic forced educators and businesses to shift to online modes of delivery. Due to social distancing and other restrictions resulting from the pandemic, face-toface training also had to follow suit. However, even before the pandemic hit, digitalisation had been in the focus of corporate training and education (Hofmeister and Pilz, 2020). The pandemic sped up the process and nowadays many organizations prefer off-campus training methods (Shirmila and Udhayarekha, 2022). The most commonly listed advantages of online training are accessibility, affordability, flexibility, and the ability to blend different types of learning into one (Dhawan, 2020). The value of strong training practices is in its positive impact on the job performance of individuals and teams through developing individual and team attitudes, motivation, and empowerment, which, when combined, lead to organizational benefits - greater productivity, sales and profitability (Aguinis and Kraiger, 2009). It is thus

paramount that companies develop a thorough understanding of learning and training in order to optimize their human capital. One of the areas businesses should place more emphasis on is employees' satisfaction with e-training, the topic of this study.

1.3. Justification for the Research

Being one of the core function of Human Resource Management, T&D (Training and Development; often referred to as Learning and Development) concerns activities focused towards better job performance (Jain, 2019). The value of strong L&D practices, including training, is recognized worldwide. To attract and retain staff, companies are now designing and developing attractive L&D programmes which can result in higher profit, new business models and a growing competitive advantage (Gabelaia and Bucovetchi, 2020; Ozturan and Kutlu, 2010). According to the UK Department for Education (2020), employers spent more than £42bn on training in 2019, while US organizations invested about \$83bn in 2020 (Legg, Gee, Bolwell, Bridges, and Rogers, 2020). These figures are a testament to the value of developing strong L&D and proof that the effects of strong L&D practices are recognized by employers across the globe. Measuring preferences and satisfaction with training programmes should become a priority. Given that there is a clear research gap on this topic in Ireland, the current study attempts to close that gap.

One explanation for the lack of studies in the area of employee satisfaction with training might be that the measurement of the effectiveness of e-learning in workplace training is a complex issue as it includes both employees' and organization' satisfaction (Ozturan and Kutlu, 2010). Because employees' satisfaction can only be measured through the lens of perceived satisfaction, and because of the complex nature of many organizational structures and business strategies, it is recognized that organizations' satisfaction with training is more difficult to obtain. Preference is thus chosen in this study as one of the indicators of perceived satisfaction with training.

However, some research on factors that contribute to the perceived satisfaction with online learning is present in the academic literature. Twenty years ago, it was recorded that distance learning did not diminish student satisfaction when compared with live face-to-face classes (Allen, Bourhis, and Burrell, 2002). Satisfaction with e-learning is a complex set of circumstances as e-courses involve multiple commitments (Dziuban, Moskal, Kramer & Thompson, 2013). Hence, it is reasonable to expect that the factors that affect perceived satisfaction with e-training may vary across different sectors. For instance, Williams (2006) studied training in the healthcare sector and concluded that the type of interaction and information offered have the greatest impact on satisfaction levels. The results of Kauffman's synthesis (2015) of various studies demonstrated that the factors which contribute to student satisfaction are the suitability of the didactic methods, tutor/student support, and course structure/design. Rodríguez-Santero et al. (2020) studied the impact of negative perceptions of learning in different workplaces, stating they can lead to unfavourable outcomes in training, such as decreased motivation and persistence, which can consequently result in dissatisfaction with online training. The latter is seen as important for the current research as it looked into perceptions of workplace learning. However, this study will focus on positive perceptions of learning and their positive correlation with training satisfaction resulting in a preference for face-to-face or e-learning.

A more recent study was conducted by Li, Taconis, and den Brok (2022), who investigated secondary school teachers' perception of an online course in China. Their research showed that participants were satisfied with the content and setup, but considered interaction and

motivation during training less satisfying, albeit appropriate. It was further proved that teachers' perceptions of the course were positively linked to their perceptions of training outcomes.

Some research has also been done in the area of vocational education and training. Hofmeister and Pilz (2020) conducted a study on teachers' perceived satisfaction with e-training and a specific teacher training tool. The research showed that successful use of e-learning depends largely on learner's positive attitudes towards such method of learning. Here, positive attitude is understood as perception that online learning tools are useful and user-friendly (ibid). Because the research was conducted among teachers, the researcher considers this research relevant for the current study. The study will try to get insight into teachers' preferences between face-to-face and e-learning, and further explore whether positive attitudes to technology use and towards online learning positively correlate with the perceived satisfaction with e-training.

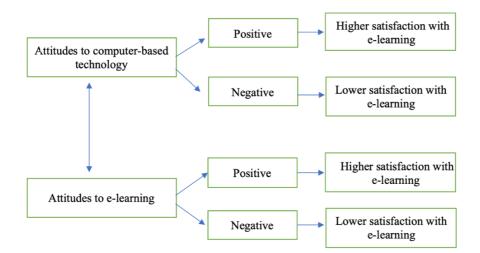


Figure 1 Conceptual framework for the research

Research has shown that strong presence of training programmes offered by an employer decreases voluntary turnover and boosts organizational performance and company profit (Renaud and Morin, 2019). Employers who see value in offering diversified training programmes nourish the social relation with their employees, and employees feel obligated to reciprocate (Renaud and Morin, 2019). Generally speaking, employees want to grow existing and develop new skills, thus, when employers offer training to these employees, they are in fact building organizational commitment which, in turn, increases retention (Rondeau et al., 2009). It is important to note, though, that training needs to be diversified and give employees the opportunity to choose training programmes that are a good match to their interests and skills. When employees develop skills that they enjoy, this results in increased motivation and quality in their work (Ling and Mohd, 2010). Innovation is also closely linked with the presence of training. A study conducted by Dostie (2018) proved that 39% of workplaces which offer formal training introduced product innovation, compared to 22% of workplaces which did not offer training. In order to maintain competitive advantage, companies must strive to create innovative products and processes. In the context of the English teaching sector, the profitability of the school depends largely on student satisfaction with their courses. It is thus crucial to develop teachers' skills and knowledge in order to secure a place in the growing English teaching market.

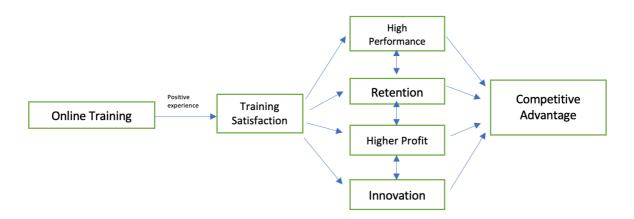


Figure 2 Theoretical Framework

While there are many benefits of face-to-face training, there are also some drawbacks. For instance, classroom-based training is quite expensive. In addition, the content employees are

trained on is quickly outdated as products and procedures have a much shorter life-cycle than in the past, and, lastly, training is also affected by external events such as the COVID-19 pandemic (Singh, Sen, and Borle, 2022). Companies are therefore starting to rely more on online training which can be accessed by employees at their own convenience (ibid). E-learning has been given substantial attention over the last few years because of the impact of the COVID-19 restrictions and social distancing. Another advantage of online learning is that it facilitates access for many participants who would not otherwise be able to attend (Rosenberg, 2001). Secondly, online modes of learning encourage autonomy and student responsibility. Thirdly, online learning is fully flexible in terms of time and place, and it also provides access to resources any time and any place. Although these benefits are listed from the university perspective, they can be translated into the study of workplace training.

The English teaching sector, not unlike the majority of other businesses, fully switched to remote working during the lockdown. All classes were held online during the lockdown in Ireland, and teacher training was no exception. Since online training was a necessity rather than choice, the measurement of its effectiveness was not seen as a priority. Hence, employee satisfaction with online training when compared to face-to-face training represents a gap in the research in the area of English teaching in Ireland. This is a surprising gap given that teachers are required to be up-to-date with technological trends and make use of different media in their day-to-day work routine.

The participants of this study are all English teachers in the private education sector. The rationale for choosing teachers as subjects in this dissertation is that all levels of education, from primary to third level, experience sudden changes in line with the volatility of external environments, such as the COVID-19 pandemic, or changing demands in the labour market.

Lifelong learning is present in all professions, but in teaching, it is considered an absolute necessity because of the rapid changes in education trends and the increasing need to use digital teaching materials (Choi, 2013; Robinson, 2008). Increased use of technology is an understandable demand for teachers of all subjects in public education, and an even more relevant one for commercially driven private adult education sector. Due to the consequences of Brexit, Ireland has become the first choice for many international English students. The English teaching industry has experienced a significant growth over the last few years and currently there are more than 200 English Language Education providers in Ireland, bringing around \in 130 million annually to the Irish economy (Slater, 2022).

Within the framework shown in Figure 1 and 2, the researcher proposes to analyse the following factors:

- 1. The comparison of employee satisfaction with e-training and face-to-face training
- 2. Attitudes towards computer-based technologies and their effect on training satisfaction,
- 3. Attitudes towards e-learning and their effect on training satisfaction.

This will be achieved through the combination of two questionnaires taken from academic literature. Firstly, to determine whether employees have a preference in the mode of training delivery, a questionnaire designed by Gherhes *et al.* (2021) will be used. The questions in the original study were filled in anonymously on an online survey service. The questionnaire consists of 8 questions (three of them are open-ended, and five closed-ended). Another questionnaire will be used to establish whether attitudes towards computer-based technologies and attitudes towards e-learning in general are linked with the perceived satisfaction with e-training. These questions are taken from the previously mentioned Hofmeister and Pilz (2020)

study on vocational teachers perceptions of online learning. However, only the first two parts of this questionnaire are used because the scope of this research does not include a specific teacher training tool, rather, it focuses on the general perceived satisfaction with e-training. Both questionnaires are publicly shared and free to use if properly referenced.

2 Aims and Objectives

The aim of this study is to show the relevance of e-training in teacher training and to examine the key factors that contribute to teachers' perceived satisfaction with such courses in comparison with face-to-face training.

2.1. Research Aim

As mentioned in the previous sections, this study examines English teachers' perceptions of online training. The sector the participants operate in is private education. All participants are part-time and full-time employees of a city centre English school. The number of teachers in the school varies as the school hires temporary staff in the summer months and is also separated into adult centre and junior centre. The participants in this study are all employed in the adult centre located in Dublin city centre where the number of teachers at the time of the survey was 45.

Based on the academic research conducted for this study, the following working hypothesis was developed: perceived satisfaction with online training is affected by participants' attitudes to computer technologies and their attitudes towards e-learning in general.

As mentioned previously, the English teaching sector in Dublin is booming resulting in more teachers obtaining their qualifications, while also bringing on other challenges, such as severe labour shortages as a result of the sudden expansion of the industry. Even though the sector has had a steady growth over the last decade, there is a scarcity of studies on the quality of teacher training. The past studies of teacher development do not have a basic understanding of the concept, its dimensions or characteristics (Evans, 2014; Bett and Makewa, 2018). The purpose of teacher professional development is to change teachers' professional thinking, knowing, feeling, and doing (Evans, 2011) and is seen as essential for teachers to be able to cope with educational innovation and manage various internal and external socioeconomic affairs (Omar, 2014). For all these reasons, teachers were chosen as the focus of this study. They are regarded as frontline workers because they work directly with students in a constantly changing educational environment. Alongside having the qualifications and knowledge necessary for the job, teachers are also required to have exceptional customer service and communication skills. Teaching English language skills differs from subject teaching as it requires enculturating a student "into a language system (grammar, words, perspective taking, identity marking)" while, at the same time, reconstructing their identity and perspectives (Gee, 1988: 129). Hence, the skills required from English language teachers differ from subject teaching, so the teacher training should also focus on the aspects specifically related to English teaching. Poor training leads to poor performance, which leads to low student satisfaction, resulting in lower profits for the company. Traditionally, teacher training was always performed face-to-face, but, as mentioned in the previous sections, with the spread of the COVID-19 pandemic, it also had to move to the online modes of delivery.

Analysis of the questionnaire conducted will reveal if teachers were more satisfied with faceto-face training or e-training. It will also reveal which mode of training they prefer. Further parts of the questionnaire will zoom in on the main factors that contribute to the satisfaction with e-training and show whether the satisfaction with online training is in any way affected by the teachers' attitudes towards computer-based technologies and e-learning.

The concepts discussed have been developed into two hypotheses which are explored in the study:

H₀: Teachers prefer face-to-face training to e-training and are more satisfied with face-to-face training.

H_a: Teachers' prefer e-training to face-to-face training and are more satisfied with e-training.

2.2. Research Objective

To explore the main factors that impact employees' perceived satisfaction with either e-training or face-to-face training.

2.3. Sub-objective:

- 1. To establish whether positive attitudes towards computer-based technologies have a positive relationship with employees' preference for e-training.
- 2. To establish whether positive attitudes towards e-learning as a method of learning have a positive relationship with employees' preference for e-training.
- To offer recommendations on training based on the results in order to improve the overall quality of teacher training in the English schools, particularly to utilize the benefits of online training.

2.4. The Significance of the Study

The main reason for doing this is study is the scarcity of research on teacher training in the English teaching sector. Because the entire industry was heavily impacted by the COVID-19 pandemic in terms of the dramatic drop in student numbers, resulting in lay-offs and downsizing, the primary goal of English schools was survival. It is therefore understandable that the quality of the teacher training was a secondary concern. This study will investigate the differences in the level of perceived satisfaction with online and face-to-face training and highlight the key factors which can be used to predict such outcomes. The significance of the study is in its insight into attitudes to training and how these findings can be used to enhance future training efforts and target them to suit participants with different needs and preferences.

3 Literature Review

When conducting a research project, it is essential to give an overview of what has already been done in the area one has chosen (Adams *et al.*, 2014). To illustrate the wider context of this study focusing on training, the literature review is divided into five sections. The first two sections offer a brief overview of theory connected with the two basic concepts in this study - learning and training, in an attempt to define the two terms. The focus of the following section is online learning/training, whereas the last two section of this literature review focus on the issues around training evaluation and measuring satisfaction with online learning, the latter being the basis of this study.

Keywords: learning, training, development, e-learning, e-training, training evaluation, training satisfaction.

3.1. Learning

To begin, one of the main concepts in this study, intertwined with the term training is the term learning. Therefore, in order to understand the process, it is necessary to clarify what it entails. For instance, Honey and Mumford (1992) offer a broad definition of learning, stating that learning occurs when people are able to demonstrate knowledge of something that they did not know before and when they can do something they were not able to do before. Garavan, Hogan and Cahir-O'Donnell (2020) concur with this view and add that learning should involve longterm changes in knowledge, skills and abilities (KSAs) which increase the potential of individuals to grow, develop and effectively perform tasks. They highlight that it is an active process which calls for active participation, involvement, evaluation, and feedback. From the perspective of this study, which looks into teachers' perception, evaluation and feedback are of even greater importance since teachers are expected to regularly give feedback to students, but are also subjected to it as frontline workers. Halpin, Curtis and Halpin (2015) highlight that learning is a much more complex process than merely memorizing facts. In fact, they add, learning involves the acquisition of facts, assimilation of the facts into a plan, and the implementation of the plan. They link this definition to the workplace experiences, stating that a job might require any type of learning, ranging from the simplest, to the most complex kind (Halpin et al., 2015). It can therefore be concluded that understanding learning is crucial in designing effective training in the workplace, especially for more the complex learning requirements. Apart from the several definitions mentioned in this paragraph, different disciplines offer definitions of learning with a few differing points.

Psychology sees learning as a persisting change in an individual's performance or performance potential which has to be the result of the learner's experience and interaction with the world (Driscoll, 2000). Similarly, Ambrose *et al.* (2010) see learning as a process that leads to change as a result of experience. Combined, change and experience increase the potential for improved performance and future learning (ibid). Brown, Roediger & McDaniel (2014) add the memory component to the definition, stating that learning is acquiring knowledge and skills which are available from memory so that we can make sense of future opportunities. Further, organizational psychology perspective offers a similar view of learning as a 'relatively permanent change in behaviour, or potential behaviour, that results from experience' (Rollinson and Broadfield, 2002: 172).

Education also sees learning as a relatively permanent change in a person's knowledge or behaviour due to experience (Mayer, 2008). The duration of this change is long-term; the locus of the change is the content of knowledge in memory or behaviour of the learner; whereas the cause of this change is the learner's experience in the environment (ibid). The field of education differentiates between learning and development, defining development as formal and planned interventions which focus on the development of attitudes, personality and self-confidence to enhance knowledge, skills and abilities and the all-round growth of employees. The aim of this process is enabling the performance of future organisational roles or preparing for future career goals and opportunities (Garavan *et al.*, 2020).

From these definitions, it is clear that learning is a complex process. In training design and delivery, it is important to understand the concept deeply in order to apply proper aspects of learning into the training. Given that most teachers understand or strive to understand the

learning process well, it might be particularly challenging to design training programmes that can fulfil teachers' professional development needs.

3.2. Training

Training and learning are often seen as two interchangeable terms. Garavan *et al.* (2020) debate whether 'learning' should fully replace the word 'training' in the workplace setting, stating that researchers from the HRM sphere prefer the term 'learning'. Bell *et al.* (2017) hold the view that training is generally associated with classroom-based activities, while HRM practitioners move beyond the classroom activities to also include informal learning processes. For the purpose of this research, training is understood a formal process and the scope of this study does not include informal learning, which also occurs in day-to-day English teaching.

Jain (2019) defines training as a learning experience which enables employees to be more efficient in performing their jobs while enhancing their skills or adding to the existing knowledge and skills. Unlike learning, training is seen a group-focused short-term activity with a concrete goal which focuses on the role, or aims at specific role requirements and present needs. Garavan *et al.* (2020) hold a similar view, adding that training is seen as a tactical approach to acquiring knowledge, skills and abilities. Training can be based on a deficit assumption (focuses on the performance gap) or improvement assumption (satisfactory level of performance needs to be achieved) (Boxall and Purcell, 2003).

Garavan *et al.* (2020) discuss the connection between learning, training and development and propose that 'learning and development' is a combination of the following:

• formal training, conducted in the classroom, on-the-job, or online;

- education and development activities which are intended to prepare employees for future career roles;
- social, collective and organisational learning, where training is viewed as an organisational activity within L&D, also seen as an individual and organisational process.

This research sees training as formal training, carried out in the classroom or online. As can be seen from the above, alongside learning and training, development is another 'buzz' term often used in the context of individual and organizational learning. Garavan et al. (2020) perceive development as a long-term and continuous learning process that can take place in numerous ways - through experience, mentoring, coaching, planned and unplanned work experiences, workshops etc. The authors stress, though, that development is self-directed and 'less tangible' than training, but still more systematic than the more general term education. They conclude that development is a planned process that over time helps an individual to develop their full potential by focusing on improving the learner's self-esteem through including elements of discovery, reflection and change. This type of process can take place in an organizational setting or it can be a more personal occurrence. CIPD (2022) state that people development is a key strategy which enables companies to achieve their goals through identifying L&D needs, and developing interventions to fill the gaps and evaluating the outcomes. The real challenge for HR, they add, is to create the right learning and development opportunities which could work in the broader context of the organization. Many activities that we perform and learn in the workplace are unintentional and fall under the definition of workplace learning (Moore and Klein, 2020). Practitioners of workplace training use numerous methods to encourage workplace learning, for instance, knowledge sharing, asking questions, promoting informal learning activities, or creating materials to support the teams' informal learning. As mentioned earlier, the presence of informal learning in the English teaching is recognized but is beyond

the scope of this study. Young *et al.* (2021) point out that the need for more flexible modes of learning/training delivery was evident even before the pandemic. As the governments imposed various measures to prevent the spread of COVID-19, the need for digital learning became greater than ever, and the English teaching industry was no different. Although definitions of learning and e-learning might somewhat overlap, a separate section of this chapter is devoted to e-learning.

3.3. E-learning and e-training

The uniform definition of e-learning/e-training is hard to find. Young *et al.* (2021) point out that various terms are used to describe 'learning that makes use of technology, usually the internet, and involving geographical and/or temporal dispersion between the facilitator and learners'. The terms often used interchangeably are virtual-, online-, digital-, e- and distance-learning. McGill, Klobas and Renzi (2014) similarly define e-learning as the use of information and communications technology in learning and teaching. Singh and Thurman (2019) define online learning as experiences in synchronous and asynchronous learning while using various devices with internet access. In these environments, they add, students can be anywhere when they learn and interact with teachers and other students. In synchronous learning, students attend live lectures with real-time interactions in which instant feedback is possible. In contrast, in asynchronous learning such interactions are not possible (Littlefield, 2018).

The greatest advantage of e-learning is flexible methodology which enables the combination of work and training (Dhawan, 2020). Many authors note that technology is used more frequently to deliver employee training, listing some of the common benefits of this type of training, such as cost reduction in terms of travel expenses and training time, alongside being able to train more people at the same time (Chen, 2008; Womble, 2008; Newton and Doonga,

2007). Other benefits of e-learning include the possibility of customisation based on the learner's needs, using multiple online tools and different media, or the combination all of the above to create an efficient learning environment (Dhawan, 2020). However, one of the greatest disadvantages is that technical difficulties can impede the teaching-learning experience (Favale *et al.*, 2020). Oglesby (2012) adds that the online delivery method can also be attractive to corporations because of the reduced costs of delivery when compared to face-to-face. On the other hand, Burke and Baldwin (1999; cited in Oglesby, 2012) warn that, regardless of cost efficiency, the funds invested in e-learning can still be wasted in the following situations: if the employees do not learn the content properly, if the learning is not transferred into the workplace, or if the learning is quickly forgotten. Thus, researching how the learning can be both efficient and transferred into the workplace through e-learning programmes is imperative.

Recent literature on learning and training states that in this unstable environment employees need to be exposed to continuous learning and training to keep the employee engagement levels high and, in order to reap the benefits of successful employee development, organizations have to apply better combinations of learning and training (Gabelaia and Bucovetchi, 2020). The authors also add that in the world of rapid technological developments, new professional knowledge and skills are constantly required while lifelong learning has never been promoted more. However, the effectiveness of virtual classrooms is often debated. Young *et al.* (2021) state that there is no difference between face-to-face and virtual classrooms in terms of their effectiveness, adding that the success of any learning depends on the quality of its design and delivery. Therefore, virtual classrooms can sometimes lead to greater gains than face-to-face classrooms. This idea is explored in the hypothesis of this study which tests whether English teachers are more satisfied with e-training than face-to-face training.

Adopting a virtual approach to training could be an economical method of training for many companies although employers are increasingly concerned with return on investment they receive from the training programmes (Oglesby, 2012). Alongside return on investment, Ozturan and Kutlu (2010) also stress that the time period over which the return on investment will occur is a concern among employers.

E-learning is growing in popularity, however, as stated in this section, it has both advantages and disadvantages. Understanding both benefits and drawbacks can undoubtedly help companies understand and apply e-training properly.

3.4. Training/learning evaluation

This section of the literature reviews focuses on issues linked with carrying out evaluation of e-learning programmes in the workplace. Although some research on the effectiveness of training in the workplace is present, it is still quite an unexplored area where numerous challenges can be noticed.

According to Ozturan and Kutlu (2010) measuring perceived satisfaction with e-learning is a complex issue because it needs to consider both the satisfaction of the employees and the organization. The authors also add that, even though most companies use some form of training evaluation, there are a number of issues around the assessment of such programmes. Firstly, many managers are not fully trained in the research metrics. Secondly, the examiners find it challenging to isolate training as a factor which has an effect on behaviours, and, thirdly, there is a general lack of interest in the training evaluation itself (ibid). The latter is a surprising fact given that training is not only widely present, but also considered quite costly (Oglesby, 2012).

This part of the literature review links the evaluation of training programmes with the research conducted in the field of online education. It is evident that evaluation of training programmes can be regarded from different aspects. For instance, Artino's research (2008) indicates that the students' satisfaction with online courses can be explained by their beliefs and motivational attitudes towards learning in general. Artino (2008) lists seven predictors of satisfaction with online courses including experience with technology and online learning, academic self-regulation, self-efficacy, and the attributed value of the task.

Khalid (2014) studied Community of Inquiry (CoI) model of satisfaction with online courses, in which teaching presence and social presence were seen as the predictors of course satisfaction. This was a different result than the one presented by Rubin *et al.* (2013) and Bulu (2012) where cognitive presence also proved to be a significant predictor of satisfaction. It is important to note though that Khalid's study (2014) was carried out among Malaysian students, and the other two studies among American and Turkish students. Thus, it can be concluded that cognitive presence factor may vary across different cultures. A year later, Kauffman's study (2015) showed that distance learning does not lower student satisfaction when compared with classroom learning. These findings can be regarded as relevant for the workplace setting. With the growing satisfaction with online courses, it is safe to assume that e-training could follow a similar path and use the most efficient methods of e-learning in e-training design.

In 2020, Rodríguez-Santero *et al.* (2020) also linked the satisfaction with e-training with the previous expectations of online training experiences and the results received at the end of the training. The study also proved that satisfaction and transfer of learning are reinforced when the training is seen as high-quality and flexible with constant feedback channels aimed at defining learning objectives, improving results, and self-regulation of learning.

Whereas this section briefly highlights some of the factors that impact satisfaction with online courses, the following segment will offer more details on the previously conducted research on perceived satisfaction with online learning/training.

3.5. Previous research on satisfaction with online training courses

While some research on training satisfaction can be found, online learning is a more widely explored phenomenon, thus, the researcher will utilize some of the findings from the area of online learning as attitudes towards it are explored in this study. Satisfaction with online training courses can be measured using a variety of instruments.

For instance, Rodríguez-Santero *et al.* (2020) warn that, when choosing an instrument to measure student satisfaction, one must carefully choose the instrument in order to include all the elements involved in online training, such as tutoring, didactic design, communication, platform use, and administrative management of the training. They further clarify that researchers should be aware that students could evaluate the whole course as unsatisfactory based on a single aspect of the course, such as a technical failure preventing the student from accessing the course.

To assess satisfaction with training, Arbaugh (2000) used a Likert-type questionnaire with responses ranging from 1 (strongly disagree) to 7 (strongly agree). The questionnaire had 7 scales:

- 1) usefulness,
- 2) the ease of use,
- 3) course flexibility,
- 4) programme flexibility,
- 5) the difficulty of interaction,
- 6) the performance of the tutor in the interaction
- 7) the use of the course's website.

Student satisfaction was the dependent variable in the questionnaire. Arbaugh (ibid) found that course flexibility (3) and the interactive environment (5) played a more important role in student satisfaction than the ease of use (2). It is expected that some of these factors might appear as relevant in this study.

Swan (2001) also used a Likert-type instrument. However, her instrument differed in its design. Unlike Arbaugh's questionnaire (2000), Swan examined five variables:

- 1) course satisfaction,
- 2) perceived learning,
- 3) personal activity in the course,
- 4) perceived interaction with the tutor,
- 5) perceived interaction with peers.

Although the basis of this study is satisfaction, listed under 1), the researcher recognizes that some of the other variables might appear as relevant factors later in the study.

Lee, Srinivasan, Trail, Lewis, and Lopez (2011) also used a questionnaire to examine perceptions of support and satisfaction with online courses that included the following dimensions: instructional support, peer support, technical support, and course satisfaction. Three of these positively correlated with the course satisfaction (ibid).

Sun, Tsai, Finger, Chen, and Yeh (2008) are authors of one of the most prominent studies of student satisfaction with virtual courses. They revealed seven critical factors affecting students' perceived satisfaction with e-learning:

- 1) the students' anxiety about the computer,
- 2) the e-learning tutor's attitude,
- 3) course flexibility,
- 4) course quality,
- 5) perceived usefulness,
- 6) perceived use ease of use, and

7) diversity in assessments.

This study was replicated in the Spanish-speaking context by Zambrano (2016) with similar results reported – the factors that most strongly correlated to students' satisfaction were course flexibility (3) and course quality (4), whereas students' anxiety about the computer (1) did not correlate significantly with students' satisfaction with the course. The research conducted for this thesis has a few similarities with Sun *et al.* (2008) study – it examines teachers' attitudes to computer-based technologies and flexibility.

Another attempt to evaluate training in the workplace in Spain was carried out by Torres-Gordillo and Cobos-Sanchiz (2013). They presented the Questionnaire to Evaluate Online Training in the Workplace (CEFOAL), which also adapted to the socioeconomic and cultural index (ISEC) of the Spanish context. Five factors were included:

- 1) pedagogical design (including items related to the teaching-learning process),
- 2) tutor performance (focusing on student-tutor interaction),
- 3) virtual environment design (referring to the structure and resources offered by the platform),
- 4) timing (adequacy of the time provided during training), and
- 5) the transfer of learning (the application of the learning in the workplace).

None of the factors listed above are included in this study, however, they are listed in this literature review to illustrate the breadth of different factors that can potentially be included in evaluation of online training. The last factor, transfer of learning is another factor perceived as relevant in satisfaction with training courses. Rodríguez-Santero *et al.* (2020) define transfer of learning as the productive application of new knowledge, skills, and attitudes to the field of work and add that transfer of learning is considered the final goal of any training process. Fauth and González-Martínez (2021) similarly define learning transfer as the degree to which a participant learns in a training program and how they can effectively and continuously apply what they learned in a work context. It can thus be concluded that the motivation to transfer

learning is the conscious desire to use in the workplace the knowledge acquired during the training. Rodríguez-Santero *et al.* (2020) list personal factors, training design factors, and workplace and organizational factors as three major groups of transfer factors. Their conclusion is that both satisfaction and transfer can be reinforced if online training is perceived as a flexible and high-quality process, with feedback channels defining learning objectives, improving results, and enabling self-regulation of learning. Transfer of learning is not within the scope of this research, however, it is listed in the literature review to illustrate one of many perspectives in the studies of training satisfaction.

Another relevant topic in recent research in the area of e-learning and face-to-face learning is students' attitudes and emotional states (Tratnik, Urh and Jereb, 2019). It was demonstrated that some students who were used to face-to-face courses and later enrolled in online classes developed negative emotions, such as anger, fear, and helplessness. However, introvert students, students with learning challenges or those who fear public speaking showed preference for online learning (Butz, Stupnisky, and Pekrun, 2015). Further, in a study conducted in Germany, Poland and Italy, attitudes to technology and e-learning were researched. The results indicated that vocational teachers had a positive attitude to computer technologies and to e-learning. However, although the need for computer-based technologies has been articulated by most teachers, many teachers did not believe that e-learning could easily be integrated into their work routine (Hofmeister and Pilz, 2020).

The latter study is seen as the most relevant for this thesis for a few reasons. Firstly, the study was conducted in Europe so it can easily be regarded as relevant for the Irish setting. Secondly, its participants are teachers, and, finally, it specifically focuses on teachers' attitudes to computer-based technologies and e-learning. Online questionnaire is seen as a suitable instrument based on the previously mentioned research, while the instrument used in

Hofmeister and Pilz study (2020) is adapted in this thesis to suit the English teaching sector in Ireland.

3.6. Literature Review Conclusion

The scope of this literature review is in no way intended to be detailed and thorough. Workplace training is a complex concept with multiple variables. However, by starting to build on the theory around definitions of learning and training, this section of the thesis attempts to give a broader context of learning and training through examining different definitions of the terms. E-learning and e-training are seen as two interchangeable terms in this study, both referring to formal learning and training. More specifically, they refer to face-to-face and online training sessions conducted regularly in the English teaching sector. Some of the general challenges concerning evaluating effectiveness of training programmes have also been briefly outlined, while satisfaction with e-training courses is regarded as a separate issue which will be explored in this study in relation to face-to-face training. The preferences for either mode of learning – face-to-face or online - will are also seen as a relevant factor for perceived satisfaction with learning. Even though literature review mentions a multitude of factors in relation to satisfaction with e-training, the two key factors impacting employee satisfaction with e-training investigated in this study are attitudes to computer-based technologies and e-learning. The researcher will use the theory from this literature review to support the findings of this study later in the thesis.

4. Methodology

This chapter presents the methods and approach used in this study, including an outline of the research philosophy which supports the research, the research framework and overview of the research design in relation to the data collection method. The research strategy for measuring the perceived satisfaction between online and face-to-face training will be defined, together with a detailed description of the research instrument, an online questionnaire (Gherhes et al., 2021; Hofmeister and Pilz, 2020) distributed to participants via Google Forms. The justification for selecting the instrument will be discussed and some limitations will also be outlined.

4.1. Research Framework

The research framework known as "the research onion" is used in this study. Saunders *et al.* (2019) describe it as the main themes used in the study, starting from the broader research philosophy and the approach to theory development, and then zooming in on the appropriate methodologies, strategies, time horizons, and data collection and analysis. The outline of the 'research onion' has assisted in the design and comprehensiveness of this study.

4.2. Research Philosophy

Research philosophy can be found in the outer layer of the 'research onion'. A research philosophy is defined as 'a system of beliefs and assumptions about the development of knowledge' (Saunders, Lewis & Thornhill, 2019:130). Even if the conducted research is not entirely new, it still develops some new knowledge in a particular setting - in the case of this study, the context of the English teaching sector. The field of management has historically been

observed as either unificationist or pluralist. Unificationists believe that all management research should consist of one strong research philosophy, paradigm, and methodology (Pfeffer, 1993), whereas pluralists advocate diversity of the field adding that it enriches the field of business management (Knudsen, 2003). Saunders et al. (2019) take a pluralist approach to business research, suggesting that each research philosophy can make a valuable contribution to the research that was undertaken. There are three main assumptions within each philosophy: ontology, epistemology, and axiology (ibid). Ontology is defined as 'assumptions about the nature of reality' (Saunders et al., 2019). The research object of this study is training, which broadly falls under the category of Human Resource Management. The ontological assumption of this research is that individuals might prefer online training to faceto-face training and how this outcome can be used to benefit the organization and the entire industry. Epistemology refers to assumptions about knowledge, what is acceptable, valid, and legitimate knowledge and how we can communicate knowledge to others (Burell and Morgan, 2016). Therefore, a variety of epistemologies can be adopted in business and management, offering a wide choice of methods. This study uses a quantitative research method which will be discussed in detail later in the chapter. Axiology concerns the role of values and ethics (Saunders et al., 2019). As stated by Heron (1996) - researchers inevitably incorporate personal values in the research process, but they need to be able to reflect on those as they conduct the research. The choice of the topic for this study is inevitably motivated by personal reasons. The researcher is a qualified teacher who considers education and training crucial for professional development. The researcher has therefore decided to focus on this area of Human Resource Management and research it in more depth. The choice of the industry is also motivated by personal experience, as the researcher currently works as a teacher in the English teaching industry. Additionally, a personal statement will be added to the thesis. Being aware of the personal involvement in the researched area, the researcher builds objectivity through using an

anonymous questionnaire as a data collection method, previously successfully used as a data collection method in Gherhes et al. (2021) and Hofmeister and Pilz (2020). It is important to note that the two questionnaires have been adapted and combined to obtain the data within the scope of this research.

According to Saunders et al. (2019), there are five major philosophies in business and management - positivism, critical realism, interpretivism, postmodernism and pragmatism. The two directly relevant for this study are positivism and interpretivism and are thus the only two mentioned in this part of the thesis. Positivism focuses on scientific empiricist method which allows for pure data uninfluenced by bias. It posits there is one true reality which is measurable and observable (often expressed by numbers) (Goodwin & Goodwin, 2017). According to the philosophy, knowledge stems from human experience and it sees the world as consisting of observable elements and events which are in interaction in an observable manner (Collins, 2008). The positivist researcher is detached and objective, whereas the typical methods used in positivist research are highly structured, deductive, and typically quantitative. Positivism is adopted as the philosophy for this research. The researcher is seen as the objective observer of the collected data, with no influence on the results. The researcher uses systematic and statistical techniques in the process to maintain objectivity (Quinlan et al., 2015). As positivism is the only philosophy that advocates the use of quantitative methods, it is seen as fit for this research. It will, however, contain elements of interpretivism, as, by being a teacher in the researched company, the researcher might be seen as part of the research, and hence biased. As previously mentioned, though, the researcher used a quantitative method to increase the objectivity of the study. From the epistemological point of view, interpretivism also focuses on perceptions and interpretations (Saunders et al., 2019), which corresponds to the topic of this study - perceived satisfaction with online training. Unlike the positivist method, based on

a large sample, the sample for this study is smaller, a feature of interpretivist method. However, the study is still quantitative, and not qualitative as interpretivism might dictate (Saunders *et al.*, 2019).

4.3. Research Approach

There are two main approaches to conducting research – deductive and inductive, both coming under positivist and interpretivist philosophies outlined earlier in the chapter (Saunders et al., 2019). In deductive reasoning, the conclusion is logically derived from theory-derived premises, the conclusion being true when all the premises are true, whereas inductive reasoning assumes there is a gap in the logic argument between the observed conclusion and the premises, the conclusion being 'judged' to be supported by the observations made (Ketokivi and Mantere, 2010). Saunders et al. (2019) argue that deduction is the development of a theory that is then tested through a series of propositions. It is an appropriate method in natural sciences where findings are drawn from the general to the specific and in which data collection is used to evaluate hypotheses connected with the existing theory. The authors further add that researchers who use deduction search to explain the causal relationship between concepts and variables, in the case of this study, the correlation between attitudes to computer-based technologies and to e-learning and the perceived satisfaction with online training. The researcher first established the conceptual and theoretical framework for the research, and then investigated previous research and findings on the main concepts in the literature review. Saunders et al. (2019) state that an important feature of deduction is that researched concepts require operationalization in a measurable way, adding that the corresponding method for this approach is quantitative. Deduction also requires a highly structured and easily replicated methodology which ensures reliability of the research (Bryman, 2006). The final feature of deduction is the ability to generalize findings by selecting the sample and the size of the sample

carefully. Based on the features listed above, the deductive approach will thus correspond to the positivist research philosophy.

On the other hand, induction is seen as more suitable for social sciences. Unlike deduction, induction generates a theory from the investigation of the subject, known as bottom-up reasoning (Horn, 2012). It is normally used through qualitative methods, such as interviews, where the number of participants is smaller. Saunders *et al.* (2019) add that the inductive approach corresponds to the interpretivist philosophy. The researcher recognizes that a smaller sample of participants is a feature of the inductive approach, but that the dominant features of the deductive approach still prevail in her research.

4.4. Research Design

Research design is defined as the plan of how the researcher answer the research question(s) (Saunders *et al.*, 2019). The research design for this thesis started with the theory and then moved towards data collection. The data was collected in within the field of private education, i.e., the English teaching sector. The researcher has a close connection with the school as she is currently an employee there. At the time of the survey the school had 45 English teachers. The author of this study opted for a quantitative survey in consultation with her supervisor in order to receive the responses quickly and to make the questionnaire more accessible to teachers, thereby ensuring genuine and valid responses. Within the quantitative study. The questionnaire QR code was posted on the notice board in the staff room as a reminder to take part in the research.

4.5. Research Design Feasibility

The researcher is an employee in the company, which has facilitated the data collection process as she could remind the participants to fill in the questionnaire in person and give details about the research when required. Teachers and managers assisted in this process by encouraging everyone to take part in the survey and allowing the researcher to invite the subjects to participate during formal meetings. The Academic Manager also gave official permission to conduct research within the school and took personal interest in the development of this dissertation (See Appendix 1). For this, the researcher is very grateful, both to the management and to the teachers.

4.6. Research Strategy

In order to establish the association between the two variables – attitudes to computer-based technologies and to e-learning, a measurement of the two has to be taken. Saunders *et al.* (2019) and Quinlan *et al.* (2015) point out that quantitative research is associated with deductive approach, in which data are collected to test the theory. It examines the relationship between variables, which are measured numerically and analysed statistically, often incorporating controls to ensure the validity of the data. In this process it is key to have clear questions so that the confusion by participants is avoided. By adapting two validated questionnaires to collect data from the chosen population, the researcher has exercised caution and focused on simplicity and clarity in the data collection questions and the choice of responses.

4.7. Research Procedure

This research is a case study on attitudes to e-learning in an English language school. Case study is often thought of as being qualitative but can and is used in quantitative research (Saunders et al., 2019). The key factor in choosing a case study is determining the boundaries

od the study (Flyvberg, 2011). In this thesis an organization is chosen as a case study, with full permission from the Academic Manager.

The survey used in this study is a combination of two questionnaires taken from studies on training conducted by Gherhes et al. (2021) and Hofmeister and Pilz (2020). The former is listed as 'open access article distributed under the terms and conditions of the Creative Commons Attribution (CCBY) licence' (Gherhes et al., 2021), whereas the latter was found through a Norma Smurfit library search in APA PsychTests database stating the permission to be used for non-commercial research and educational purposes without the written permission (copy of permission in Appendix 2). The final survey was distributed using Google Forms and random sampling was seen as best fit to the method.

Self-completed questionnaire method is seen as suitable because of the standardized questions which give the researcher the confidence that all respondents will have the same interpretation of the questions (Robson and McCartan, 2016). Given that the researcher created a new instrument, the questionnaire was pilot tested on two volunteers. This helped the researcher clarify some questions and reconsider the number of points in some Likert-scale questions. Extra caution was exercised by the researcher to simplify the questions and responses to avoid ambiguity. No incentives were used to obtain the responses and the respondents could stop the questionnaire at any time. Full anonymity was guaranteed and no personal information, such as names or email addresses was collected.

Questionnaire is a method of data collection in which respondents are asked to answer the same set of questions in a predetermined order. It is one of the most widely used data collection methods as it considered the most efficient way of collecting responses from a large sample before conducting the quantitative analysis (Saunders *et al.*, 2019). The authors further add that questionnaires tend to be used for descriptive research, such as attitude and opinion questionnaires, as is the case in this study.

The participants in this study were invited to complete 20 questions, broken into 4 sections: demographics, face-to-face learning in relation to e-learning, attitudes to computer-based technology, and attitudes to online learning. A selection of demographic questions was added – age, gender, and years of teaching experience.

The preferences regarding face-to-face learning and online learning are tested using 6 questions, starting from stating the preferred mode of learning – face-to-face or online. The next questions examine advantages and disadvantages of online learning, levels of engagement and learning effort during online learning. These questions were originally open-ended, but the findings of the Gherhes *et al.* (2021) study were transformed into closed-ended questions in order to answer the research questions in this study. The last question in this section is the extent to which the respondents would like to return to face-to-face learning after the end of the pandemic. The response options for question number 8 ("In comparison with face-to-face learning, the learning effort during e-learning for you is? (see Appendix 3) were changed from a Likert three-scale to five-scale to obtain more precise responses as advised by the pilot study participants and agreed with the researcher.

The third section comprises six statements to examine 'attitudes to computer-based technology' construct. The responses are marked using the original 4-point Likert scale, as used in Hofmeister and Pilz (2020), ranging from 'Strongly disagree' to 'Strongly agree'. This part establishes whether respondents have a positive or negative attitude to computer-based technologies.

Attitudes to online learning are measured in the last section of the instrument. Five statements are offered on a four-point Likert scale, also ranging from 'Strongly disagree' to 'strongly agree'. The attitudes to online learning are established based on meaningfulness of e-learning, the need for e-learning in teacher training, the role of multimedia, using the computer to learn, and flexibility of this mode of learning.

The combination of the two surveys was chosen to establish the connection between the satisfaction with e-training and attitudes to computer-based technology and online learning. This was confirmed with the supervisor as the suitable approach. The total number of participants who completed the questionnaire was 34. The survey was closed after 7 days, with a justification that a large number of participants completed the survey in the first three days. A statistical analysis was then carried out using SPSS statistical tool.

4.8. Sampling

The selected sample should be related to the population stated in the research question and objectives (Saunders et al., 2019). Given that this research is a case study, the chosen population for this study is teachers of English in a city centre English school. The researcher used non-probability sampling, which has become more prevalent with the growth of popularity of online questionnaires (Baker *et al.*, 2013). Participants were selected on a random basis, even though they are all employees in the same company. There was no order in which they were asked to complete the questionnaire and no particular demographics was chosen within the sample. The respondents do not represent the population of the company, and the samples size does not reduce the sampling bias. Bias is a systematic error which can impact on the research findings, especially in non-probability sampling (McCullagh, 2008). The sample size for this research is 34. The respondents are male and female teachers of different ages and

were invited to participate via QR code and email. Some participants were approached personally by the researcher but were under no obligation to take part in the survey.

4.9. Time Horizon

This research is cross-sectional as it involves a study of a particular phenomenon at a particular time (Saunders *et al.*, 2019). It also employs the survey strategy to describe employees' preference in type of learning and how the attitudes to computer-based technologies and e-learning might be related to the satisfaction with e-learning. The cross-sectional aspect is justified in stating that the researcher decided to examine this topic in the period after strict COVID-19 restrictions. The researcher is of the opinion that the attitudes to face-to-face learning might have changed following the growing preference for hybrid/remote working.

4.10. Research Ethics

Ethics is defined as acceptable actions and behaviours by societies' norms (Saunders et al., 2019) and is a relevant aspect of any academic research. This study respects the ethical guidelines set out by National College of Ireland. A consent form is included in the online questionnaire, reminding participants that their participation in the survey is completely anonymous and voluntary. No personal information is required or recorded. The researcher provided her email in case participants require further information about the progress of research. In reporting the results and analysis, confidentiality is maintained. All work borrowed from other academic researchers has been properly references in-text according to the Harvard Referencing Guidelines and the full reference list is included at the end of this dissertation.

4.11. Data Analysis, Validity and Reliability

The data gathered from the questionnaire was input into SPSS (Statistical Packages for Social Sciences) downloaded from the NCI website. This software is a recommendation for quantitative studies. The questionnaire used for this research consists of 4 scales – demographics, preferred mode of learning, attitudes to computer-based technologies and attitudes to e-learning.

Cronbach Alpha internal reliability is not suitable for demographics and multiple choice responses, which were adapted from Gherhes *et al.* (2021) in order to establish some of the factors for preference to either face-to-face or online learning.

The reliability of the last two scales was measured by applying the Cronbach Alpha statistic procedure. The scale 'Attitudes to Computer-based Technology' consists of 6 items, with Cronbach Alpha 0.818. The acceptable range of the alpha coefficient is above 0.7, thus this scale is considered internally reliable. The second scale 'Attitudes to E-learning' has 5 items, resulting in the Cronbach Alpha at 0.652. This result indicated slightly lower reliability in comparison to the first figure.

Table 1: Cronbach's Alpha

Variables:	No of items.	Cronbach's Alpha
Attitude to Computer-based	6	0.818
Technology		
Attitude to E-learning	5	0.652

(For details, see Appendix 4)

Descriptive analysis of the results was carried out to establish whether any patterns occur. The analysis includes pie charts, histograms, and frequencies analysis. Mode, median and mean values are presented for each variable, together with the standard deviation values. Histograms were explained and skewness indicated.

The significance value accepted for this research was 5%, a standard in social sciences. The p-value test was conducted in SPSS to test the hypothesis. In other words, to accept or reject the null hypothesis. If p-value is greater than 0.05, the null hypothesis is accepted. Should the value prove to be under 0.05, the null hypothesis is rejected (Quinlan *et al.*, 2015).

Pearson product-moment correlation coefficient is also run in this study to investigate whether there is a significant relationship between the linearly related variables. Spearman's coefficient has also been calculated for the relationship between different variables. In measuring the association between variables, the values range from -1 (perfect negative) to 1 (perfect positive correlation). According to Cohen (1988), the following guidelines apply:

Correlation coefficient value	Association
-0.3 to +0.3	Weak
0.5 to -0.3 or 0.3 to 0.5	Moderate
-0.9 to -0.5 or 0.5 to 0.9	Strong
-1.0 to -0.9 or 0.9 to 1.0	Very Strong

 Table 2: Correlation Coefficient Guidelines (Cohen, 1988)

The coefficient of determination is calculated by squaring the R-value and converting it into a percentage. For instance, in the Table 11, where Attitudes to computer-based technologies and Attitudes to e-learning are examined, the Pearson correlation is 0.483. the squared value shows 23.33% shared variance in respondents scores.

4.12. Research Limitations

Although this study is based on a theoretical framework and has been measured with reliable survey instruments, some limitations are evident.

Firstly, the research is a case study, and, as such poses a few limitations. As stated by Flyvberg (2011) case study method often faces criticism for the ability to produce reliable and generalized contributions to knowledge given that it is based on a small sample. The case studied in this thesis are English teachers in an English school. The results are not indicative of wider population although some similarities might certainly be found.

Secondly, this research is taken at a particular point in time, mostly over the months of June, July and August 2022 and its findings are only related to this time frame. A longitudinal study tracking the same respondents over time might give more detailed insight into attitudes to elearning.

The respondents for this study were approached in order to collect data through the questionnaire. However, not all teachers were included in the study as the school operates in 6 different locations. Due to time constraints, and upon consultation with the supervisor, the researcher focused on the teachers available in her location of work. Some teachers were also absent due to illness or annual leave.

The decision to choose the quantitative data for the dissertation was made by the researcher based on the Research Methods team feedback on her proposal. Initially, the researcher intended to combine qualitative and quantitative data collection but was advised against combining the two methods by a member of the Research Methods team. Although collecting quantitative data has numerous benefits, perhaps it negates the depth and meaningfulness of personal answers that might have been collected through qualitative approach. However, as mentioned in the previous section, case study is indeed a more common strategy in the qualitative approach, so the study still maintains the elements of both qualitative and quantitative research.

5 Research Analysis and Findings

Two types of data are obtained from the instrument used in this study – nominal or descriptive, and ordinal or rank. Nominal data are unambiguous and discrete, i.e., they have one particular feature which excludes all others. This type of data is also impossible to rank (Saunders *et al.*, 2019). Nominal data are present in sections 1 and 2 of the survey. Part 1 collects demographic data, while part 2 focuses on the respondents' preference for face-to-face or online learning and examines some of the factors which contribute to this preference.

The numerical data was obtained from the remaining two sections of the questionnaire and coded into SPSS. Exploratory Data Analysis (EDA) emphasizes the use of graphs to explore and understand data (Saunders *et al.*, 2019). The chapter begins with a description of demographic data and then moves on to the descriptive analysis of other results obtained from the data set. They include frequencies analysis indicating mean, mode, median calculations, standard deviation measures, histograms, and tables. The inferential analysis comprises correlation calculations – Pearson's and Spearman's coefficient and median split calculations.

The aim of the statistical tests is to address the research objectives:

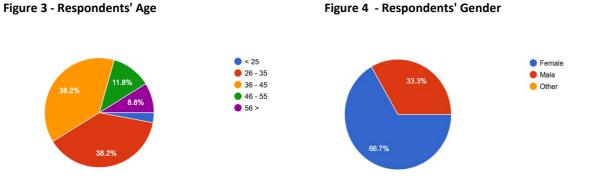
1. To establish whether positive attitudes towards computer-based technologies have a positive relationship with employees' preference for e-training.

- 2. To establish whether positive attitudes towards e-learning as a method of learning have a positive relationship with employees' preference for e-training.
- 3. To offer recommendations on training based on the results in order to improve the overall quality of teacher training in the English schools, particularly to utilize the benefits of online training.

5.1. Descriptive statistics

5.1.1. Demographics

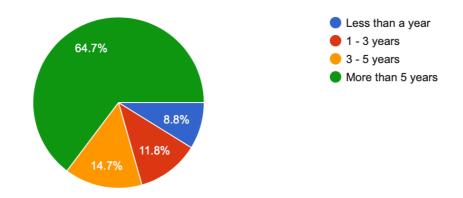
There were 34 full responses to the questionnaire and a total of 45 teachers working in the city centre location of the school where the survey was distributed. Some teachers were temporary summer staff covering classes at the time of data collection but were invited to participate nevertheless in order to get more accurate data. The QR code linking the phone camera to the questionnaire was placed on the notice board and participants were invited to participate during two weekly meetings. The survey was closed after a week and the data was input into SPSS. The summary of the demographic findings is as follows: only one participant was younger than 25 years of age, and about 80% of respondents are aged 26 - 45 (38.2% are aged 26 - 35, and 36 - 45). About 20% of participants are over 46 years old.



Further, the analysis showed that there were twice as many female teachers participating in the study (Female 66.7%, Male 33.3%), whereas 0 respondents identified as "other".

Regarding teaching experience, over a half of respondents are considered experienced teachers with over 5 years of experience (64.7%), whereas about a quarter of respondents have over 1 and less than 5 years of experience (26.5%). About 8.8% have less than a year of teaching experience.

Figure 5 - Respondents' Teaching Experience



5.1.2 Preference for Face-to-face or E-learning

A histogram has been created to illustrate the results of the participants' preferred mode of learning. Participants chose an option on a scale of 1 to 5. Value 1 represents a strong

preference for face-to-face learning, whereas 5 represents a strong preference for online learning.

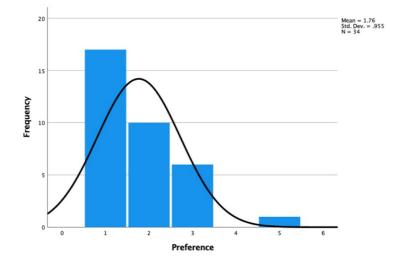


Figure 6 - Preferred Mode of Learning on a scale of 1-5

A frequencies analysis showed the mean value of 1.76 (M = 1.76) with a standard deviation of 0.955 (SD = 0.955), with almost 80% of participants showing a preference for face-to-face learning. Further Frequencies Analysis as presented in Table 3 demonstrates a breakdown of the results across the four chosen options ('Strong online' has not been chosen) and the exact number of participants choosing a certain option. The histogram is skewed to the right indicating that the peak value is on the left side of the histogram.

Table 3 - Frequencies Analysis Preference (Face-to-face or e-learning)

Statistics

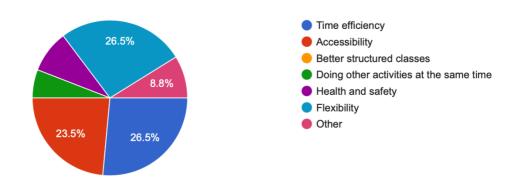
Preference		
N Valid		34
	Missing	0
Mean		1.76
Median		1.50
Mode		1
Std. D	eviation	.955

		Prefe	rence		
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Face-to-face	17	50.0	50.0	50.0
	Strong face-to-face	10	29.4	29.4	79.4
	Neutral	6	17.6	17.6	97.1
	Online	1	2.9	2.9	100.0
	Total	34	100.0	100.0	

5.1.3. Main Advantage of E-learning

A pie chart has been created to demonstrate the results to the survey question about the main advantage of e-learning. An equal percentage of respondents stated that time efficiency (26.5%) and flexibility (26.5%) are the two main advantages of e-learning.

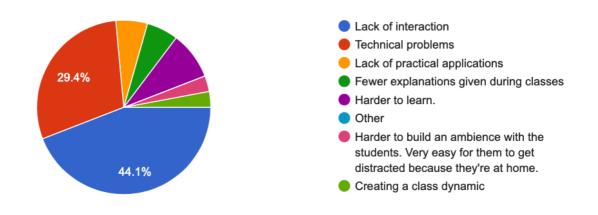


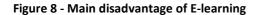


5.1.4. Main disadvantage of E-learning

A pie chart has once again been created to illustrate the main disadvantages of e-learning according to the responses to the questionnaires. 44.1% of respondents (15 respondents) state

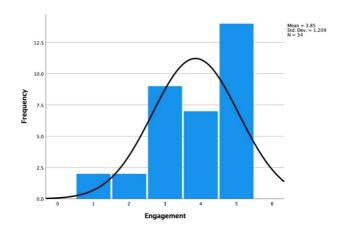
that lack of interaction is the main disadvantage, whereas the second most reported drawback is technical problems (29.4% or 10 respondents).





5.1.5. Engagement during E-learning

The researcher decided to measure perceived satisfaction through obtaining data on engagement, learning effort, and the willingness to return to face-to-face learning. Engagement during E-learning is represented in a histogram below. The mean value is calculated at 3.85 (M = 3.85) with a standard deviation of 1.209 (SD = 1.209). The vertical axis represents frequency, whereas the horizontal axis represents engagement during online learning on a scale of 1 to 5. Figure 9 – Engagement during E-learning



Frequencies analysis was conducted in order to obtain more specific data on the chosen responses across the categories on engagement during online learning. A total of 34 responses was collected. The graph is skewed to the left, with the greatest value placed on the right side of the graph.

Table 4 – Engagement during online learning Frequencies Analysis

 N
 Valid
 348

 Missing
 00

 Mediar
 3.85

 Mediar
 4.00

 Mode
 5

 Std. Deviation
 1.209

		Engager	nent		
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High engagement during e-learning	2	5.9	5.9	5.9
	Quite high engagement during e-learning	2	5.9	5.9	11.8
	The same as face-to- face	9	26.5	26.5	38.2
	Quite high face-to-face	7	20.6	20.6	58.8
	High during face-to- face	14	41.2	41.2	100.0
	Total	34	100.0	100.0	

5.1.6. Learning Effort During E-learning

The learning effort variable was measured in the following histogram. The vertical axis represents frequency of the responses and the horizontal the learning effort reported. The mean

value (M = 2.68) was established with a standard deviation of 1.121 (SD = 1.121). The histogram is skewed to the right, indicating that the peak of the graph is to the left side of the centre. It also indicates that the frequencies of the observations on the right side of the graph are lower than the frequencies of observations to the left.

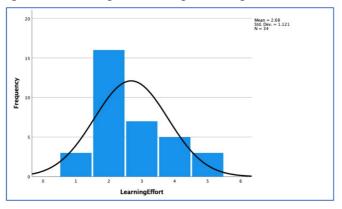


Figure 10 – Learning effort during e-learning

Frequencies analysis has been conducted to break down the specifics of the responses in terms

of numbers of respondents choosing each of the responses, together with the percentages.

Table 5 – Learning effort during online learning in comparison with face-to-face learning

Statistics					
Learn	ingEffort				
Ν	Valid	34			
	Missing	0			
Mean		2.68			
Media	an	2.00			
Mode		2			
Std. Deviation		1.121			

		Learn	ingEffor	t	
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Much Lower	3	8.8	8.8	8.8
	Slightly Lower	16	47.1	47.1	55.9
	The Same	7	20.6	20.6	76.5
	Slightly Higher	5	14.7	14.7	91.2
	Much Higher	3	8.8	8.8	100.0
	Total	34	100.0	100.0	

5.1.7. The return to face-to-face learning

The willingness to return to face-to-face learning is presented in the histogram below. The mean value is calculated at 4.09 (M = 4.09) while the standard deviation is 1.026 (SD =

1.026). The graph is skewed to the left, indicating that the peak of the graph is on the right side of the centre (at 5 as indicated on the horizontal axis).

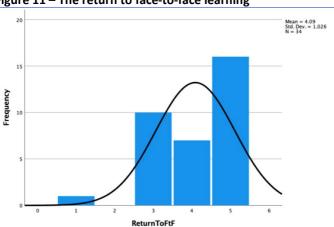


Figure 11 – The return to face-to-face learning

Frequencies analysis has also been carried out in SPSS with the results demonstrated in Table 6.



	Statistics						
Retur	nToFtF						
N Valid		34					
	Missing	0					
Mean		4.09					
Median		4.00					
Mode		5					
Std. D	eviation	1.026					

	ReturnToFtF					
		Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	to a very small extent	1	2.9	2.9	2.9	
	to a moderate extent	10	29.4	29.4	32.4	
	to a large extent	7	20.6	20.6	52.9	
	to a very large extent	16	47.1	47.1	100.0	
	Total	34	100.0	100.0		

5.1.8. Attitudes to Computer-based Technologies

Attitudes to computer-based technologies were measured in a Likert-type scale, ranging from 1 -Strongly Disagree to 4 -Strongly Agree. A numerical display of the information in the histograms relating to the independent variable, attitudes to Computer-based Technology is

presented in table 6. The mean, median, and mode values are presented for the six variables tested in this part of the questionnaire. Full questionnaire is available in Appendix 3.

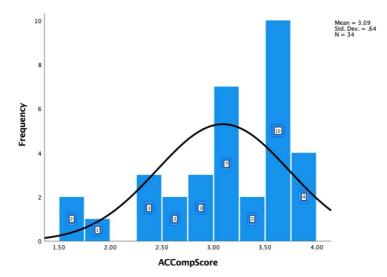
Table 7 – Attitudes to computer-based technology

		ACT1	ACT2	ACT3	ACT4	ACT5	ACT6
N	Valid	34	33	34	34	34	34
	Missing	0	1	0	0	0	0
Mean		2.88	2.85	2.82	2.85	3.29	3.85
Media	n	3.00	3.00	3.00	3.00	4.00	4.00
Mode		3	4	3	3	4	4

Attitudes To Computer-based Technology

A composite score histogram has also been created for this construct, indicating a mean value (M = 3.09) with a standard deviation of 0.64 (SD = 0.64). The distribution is skewed to the left, demonstrating that the peak value in the graph is on the right side to the middle of the graph (Figure 12).

Figure 12 – Attitudes to computer-based technologies Composite Score



5.1.9. Attitudes to E-learning

The independent variable 'Attitudes to e-learning' has also been descriptively analyzed. Table 7 presents information on mean, median, and mode values across the five statements tested in the survey.

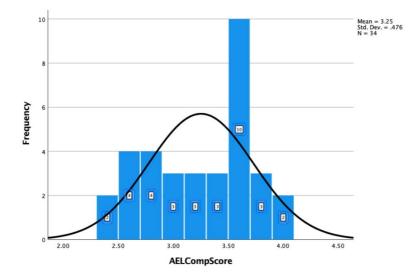
Table 8 – Attitudes to E-learning

		AEL1	AEL2	AEL3	AEL4	AEL5
Ν	Valid	34	34	34	34	34
	Missing	0	0	0	0	0
Mean		3.29	3.26	3.47	3.41	2.82
Media	เท	3.00	3.00	4.00	4.00	3.00
Mode		3	4	4	4	3

Attitudes to e-learning

The mean scores in this independent variable range from M = 2.82 to M = 3.47. The value '3' was given to 'Slightly agree'. The highest M = 3.47 was demonstrated in AEL3 whereas the lowest mean score M = 2.82 was received in AEL5.

Figure 13 – Attitudes to e-learning Composite Score



It is indicated in the histogram that the mean score for attitudes to e-learning is 3.25 (M = 3.25) with a standard deviation of 0.476 (SD = 0.476) based on the data obtained from all 34 participants. The graph is skewed to the left, indicating that the peak of the graph is on the right side of the graph.

5.2 Inferential Statistics

Two types of bivariate correlations have been calculated – Pearson Product-moment correlation and Spearman Correlation. All bivariate correlation analyses demonstrate the

strength of the association in a single value, also referred to as correlation coefficient. The value is between -1 and +1. A positive correlation coefficient will indicate a positive relationship between the variables. In other words, it will tell us that as the values of one variable increase, values of the other variable also increase. Conversely, a negative correlation coefficient will indicate a negative relationship – as the value of one variable increases, values of the other variable decrease. Should the correlation coefficient be calculated at 0 value, this could indicate there is no relationship between the variables. However, it should be noted that in the case of Spearman and Pearson, even if the correlation coefficient is zero, a non-linear relationship might still exist.

Spearman correlation has been calculated in SPSS for preference and experience presented in table 8. The correlation coefficient is calculated at 0.285 with a p-value of 0.103 (p = .103) indicating a weak positive correlation given that the value is between -0.3 to +0.3. One of the sub-objectives of this research was to offer recommendations on how to improve training in English schools and the researcher believes that this result can be included in recommendations.

Table 8 – Preference and Experience Spearman's rho
Nonparametric Correlations

		Correlations		
			Preference	Experience
Spearman's rho	Preference	Correlation Coefficient	1.000	.285
		Sig. (2-tailed)		.103
		N	34	34
	Experience	Correlation Coefficient	.285	1.000
		Sig. (2-tailed)	.103	
		Ν	34	34

Spearman correlation has also been run for preference and Attitudes to Computer-based learning (table 9). Spearman's correlation coefficient in this case is .260 ($r_s = 0.26$) indicating once again a weak positive correlation as it is between -0.3 and +0.3. However, this is not seen as a significant correlation.

 Table 9 – Spearman's correlation – preference and Attitudes to Computer-based technologies

		Correlations		
			Preference	ACCompScor e
Spearman's rho	Preference	Correlation Coefficient	1.000	.260
		Sig. (2-tailed)		.137
		Ν	34	34
	ACCompScore	Correlation Coefficient	.260	1.000
		Sig. (2-tailed)	.137	
		N	34	34

Spearman's correlation is has been run to determine the relationship between the preference variable and the Attitudes to E-learning (Table 10). There was a significant correlation between these two variables, which is statistically significant (r_s =.396) with a p-value calculated at .02 (p=.02).

Table 10 – Spearman's correlation – preference and attitudes to e-learning

Correlations						
			Preference	AELCompSco re		
Spearman's rho	Preference	Correlation Coefficient	1.000	.396*		
		Sig. (2-tailed)		.020		
		Ν	34	34		
	AELCompScore	Correlation Coefficient	.396 [*]	1.000		
		Sig. (2-tailed)	.020			
		Ν	34	34		

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

A Spearman correlation was run in SPSS to check the relationship between the level of engagement and age. The correlation was calculated at -.101 indicating a weak negative correlation with a p-value of .568 (p = .568) based on the results obtained from all 34 participants.

Table 11 – Spearman's correlation – Engagement and Age

			Engagement	Age
Spearman's rho	Engagement	Correlation Coefficient	1.000	101
		Sig. (2-tailed)		.568
		Ν	34	34
	Age	Correlation Coefficient	101	1.000
		Sig. (2-tailed)	.568	
		Ν	34	34

Correlations

SPSS was used to calculate the Pearson correlation coefficient to determine the relationship between Attitudes to Computer-based learning and Attitudes to e-learning (Table 11). A strong positive correlation has been found ($r_s = .483$) with a p-value of .004 (p = .004). To calculate the variance between the two variables, we calculate the coefficient of determination. Table 11 shows Pearson correlation 0.483.

Table 12 – Pearson correlation - Attitudes to Computer-based learning and Attitudes to elearning

Correlations						
		AELCompSco re	ACCompScor e			
AELCompScore	Pearson Correlation	1	.483**			
	Sig. (2-tailed)		.004			
	Ν	34	34			
ACCompScore	Pearson Correlation	.483**	1			
	Sig. (2-tailed)	.004				
	Ν	34	34			

Correlations

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

Median split calculations have been run for attitudes. Attitudes to Computer-based technology were calculated first with a median value at 3.1667. Then the variables were recoded: all variables with the value 3.17 and up were marked as 1, and all other as 0. The calculations showed that for Attitudes to Computer-based Technologies, 53% of respondents had below 3.17, whereas the rest (47%) had over 3.17 in attitudes. As number 3 in attitudes was 'Slightly agree'.

Table 13 – Median split – Attitudes to Computer-based technology

		AttCB						
ACCo	mpScore							Cumulative
N	Valid	34			Frequency	Percent	Valid Percent	Percent
	Missing	0	Valid	.00	18	52.9	52.9	52.9
	5			1.00	16	47.1	47.1	100.0
Median 3.1667			Total	34	100.0	100.0		

The same calculation has been run for Attitudes to E-learning. All values of 3.4 and above were coded as 1, while all other values were coded as 0. The calculation shows that just about 53% of respondents fall into the category of the exact median value or above, while 47% represent the remaining population.

Table 14 - Median split - Attitudes to E-learning

				AELCat				
	Statistic	s			Frequency	Percent	Valid Percent	Cumulative Percent
AELCompScore			Valid	.00	16	47.1	47.1	47.1
Ν	Valid	34		1.00	18	52.9	52.9	100.0
	Missing	0						20010
Media	เท	3.4000		Total	34	100.0	100.0	

5.3 Research Findings Conclusion

This chapter presents results of the questionnaire and different statistical test conducted to investigate the objectives of the research. The chapter begins with the presentation of descriptive data obtained from the questionnaire – age, gender, and years of experience. The inferential analysis contains calculations on the relationships between variables, Pearson's and Spearman's coefficients and a brief explanation of the results. All results will be discussed in detail in the discussion chapter of this dissertation and the connection of the research findings and the sub-objectives will be explained.

6 Discussion

6.1. Interpretation of the results

As discussed in the literature review, measuring satisfaction with online learning is a complex issue because it in fact measures two types of satisfaction – employees' and employers' (Ozturan and Kutlu, 2010). This research did not expand to the employers' satisfaction. It was further discussed that perceived satisfaction is a complex concept which can be measured in many ways. Some researchers measured it through measuring beliefs and motivational attitudes in general (Artino, 2008) or examining the teaching and social presence (Khalid, 2014). Other researchers linked satisfaction with the transfer of learning (Rodríguez-Santero *et al.*, 2020).

The first factor that was investigated in this study was whether teachers prefer face-to-face or online learning. This was examined through a statement on a range of 1 to 5, 1 standing for face-to-face and 5 for online learning (table 3). The mean score of 1.76 indicates a strong preference for face-to-face learning. About 53% of participants (N=18) chose option 1 (strong face-to-face learning preference), whereas another 29.4% chose option 2, indicating a quite strong preference for face-to-face learning. Therefore, it can be concluded that about 80% of participants prefer face-to-face learning to online learning. Only 1 respondent prefers online learning. In the study conducted by Gherhes et al. (2021) the face-to-face preference was recorded at just over 60% for the accumulated scores. In relation to those results, the findings of this research show a significantly higher preference for face-to-face learning. However, the original scale was 1 - 10, whereas the scale for this study was 1 - 5. The null hypothesis is therefore accepted.

Spearman's correlation calculation was conducted in SPSS in order to see whether there was a correlation between the preference and teaching experience (table 8). A weak positive correlation has been established ($r_s = .285$) indicating that both variables tend to increase in response to one another, the relationship between them is positive, but not very strong.

In the last questionnaire item where respondents were asked to what extent would they return to face-to-face learning, a similar result in favour of face-to-face learning was measured (Figure 11). The mean value of 4.09 (M=4.09) indicates that most respondents would like to return fully to face-to-face learning. To be more specific, to the statement 'To which extent would you return to face-to-face learning after the pandemic' almost 80% of respondents (77.7% - see table 6) responded with 'to a large extent' (20.6%, N=7) or 'to a very large extent' (47.1%, N=16). Both these results also prove that the null hypothesis is accepted – participants showed a lower preference for e-learning than for face-to-face learning.

Regardless of the strong preference for face-to-face learning as shown above, some other factors in e-learning were examined in the study to establish which elements contribute to satisfaction with e-learning. Firstly, the researcher looked at advantages and disadvantages of e-learning. The two predominant advantages are time efficiency (26.5%, N=9) and flexibility (26.5%, N=9) followed by accessibility (23.5%, N=8) (Figure 7). Flexibility has previously been found to also impact the perceived satisfaction with training in a study conducted by Arbaugh (2000) and Zambrano (2016). In Gherhes *et al.* (2021) the three main advantages are time efficiency is number one, as in this study, whereas accessibility is also number three in both studies. It is important to note that in Gherhes *et al.* (2021) twelve options were included

in the answer. As explained previously, for this research, the researcher chose only the options that she considered relevant in line with the literature review.

Further, the disadvantages statement of the survey has not been changed. In Gherhes *et al.* (2021) similar results were recorded. Lack of interaction (19.2%) and technical problems (12.7%) are also seen as the main disadvantages. The results in this study for the main disadvantage of e-learning (Figure 8) demonstrate that lack of interaction is the biggest disadvantage at 44.1% (N=15), followed by technical problems at 29.4% (N=10). Perceived interaction with the tutor and perceived satisfaction with the peers have both been found to impact satisfaction with training in a study conducted by Swan (2001).

The learning effort and engagement are seen as important factors in e-learning satisfaction. The results of this study show a mean value of 3.85 (M=3.85) indicating high engagement during face-to-face learning. 61.8% of respondents stated that their engagement in face-to-face learning is 'quite high' or 'high' (N=21) while 26.5% (N=9) stated that their engagement is the same in e-learning as in face-to-face learning. Only a small number of respondents (N=4) stated that their engagement during e-learning is 'quite high' or 'high'. Conversely, in Gherhes *et al.* (2021) the level of engagement during e-learning is higher than during face-to-face learning at about 60% (combined results from 6 -10 indicating a higher level of engagement during e-learning). These results also contribute to the acceptance of the null hypothesis – participants still prefer face-to-face learning and report that their engagement during such learning is quite high.

Learning effort is another important component of perceived satisfaction with e-learning. The mean value for the effort was measured at 2.68 (M=2.68) indicating a slightly lower learning

effort during e-learning when compared. To face-to-face. About 56% opted for 'slightly lower' or 'much lower' option, while just above 20% chose the option 'the same effort as during face-to-face learning'. When it comes to the comparison to Gherhes *et al.* (2021), it should be mentioned that the responses for effort during e-learning were collected in a three-scale (lower – the same – higher). Unlike the results obtained in this study, the distribution of the answers in Gherhes *et al.* (2021) study was relatively equal across all three options. About 37.4% reported the same effort during both modes of learning, while lower effort during e-learning was reported by 31.5%. Higher engagement during e-learning was reported by 31.1%.

The descriptive analysis of results of Attitudes to Computer-based Technology showed an overall mean value ranging from 2.82 to 3.85 (M=3.09) indicating an overall positive attitude towards computer-based technologies. Value '3' was assigned to 'slightly agree'. The highest mean value was recorded for ACT6 (see Appendix 3) whereas the lowest was ACT3.

The descriptive analysis of results for the Attitudes to E-learning section of the survey showed a mean value of 3.25, in a range between 2.82 and 3.47, indicating once again a positive attitude to E-learning. Sub-objectives of this research were to examine how attitudes affect the preferences. The two results for Attitudes are very interesting because they show that, although participants have an overall positive attitude to both computer-based technology and e-learning, they still prefer face-to-face learning. This might be due to the fact that respondents simply like to use the computer for their day-to-day job, but not for training. It can also be assumed that, while they happy to use the computer during training/learning, they still prefer face-to-face learning.

To further explore other factors relevant in the study, inferential calculations have been run in SPSS. Spearman's correlation has been run in order to establish whether there is a relationship between the preference and teachers' experience (table 8). The results indicated a weak positive correlation ($r_s = 0.285$) which is not seen as statistically significant. Thus, a conclusion can be drawn that preferences for the mode of learning are only in a weak correlation with the work experience of the teachers who took part in this survey.

Spearman's correlation has also been run to establish the relationship between the Preference and Attitudes to Computer-based Learning (Table 9). The correlation coefficient of 0.26 is seen as signifying another weak positive correlation. This indicates that if preference is high, it will only result in a slightly higher attitudes to computer-based learning. The first sub-objective is therefore reached – positive attitudes to computers will only slightly increase the preference for e-learning.

Since this study also examined attitudes to E-learning, Spearman rho has also been calculated to establish whether there is a significant relationship between Preference and Attitudes to E-learning (Table 10). Unlike the previous measurement, in this correlation, the coefficient is .396 indicating a moderate positive association (Table 2). This means that if the preference increases, the attitudes to e-learning will also moderately increase. The second sub-objective was to establish if positive attitudes to e-learning have a positive relationship with employees' preference for e-learning. The results indicate that they are in a positive relationship, however, still not sufficiently significant to change the employees' preference from face-to-face to e-learning.

To determine the relationship between the two measured attitudes – to computer-based learning and to e-learning, a Pearson correlation has been calculated. The value has been calculated at .483 indicating a stronger moderate positive relationship. This indicates that should one of the variables increase, the other will increase too.

6.2. Limitations

The main limitation of this study is that it is a case study. As explained in the methodology section, case studies are commonly associated with qualitative research (Saunders et al., 2019). Small samples often imply a large margin of error. It is necessary to highlight that this study has a small number of participants who were available at the time of data collection.

Another limitation is that this study was conducted shortly after the COVID-19 restrictions were fully lifted, which might have resulted in more negative attitudes to online learning. The teachers who participated in this study have all been teaching online for nearly two years and it is understandable that they might have suffered from computer fatigue. However, it is still interesting to notice that their attitudes to computer-based technologies are extremely positive. Teachers are in general happy to use their computer in their daily professional life. However, it is important to note that the research did not collect data on how much time are they willing to spend at the computer.

The study by Gherhes et al. (2021) examined attitudes of university students to online learning. As previously explained, the scale used in this study was adapted to suit the requirements of the thesis. This is another limitation. Although there are some similarities between the populations, i.e. they are all adults of various ages, the population in the Gherhes et al. (2021) study is slightly younger, which could account for the differences in the results. On the other hand, as elaborated in the Discussion section, there were some similarities between the findings.

6.3. Future Studies and Practical Implications

Online training and learning are gaining more attention and strategic value in the modern workplace. Researching employees' attitudes to learning in general, and particularly e-learning should become a priority. This study only looked at a small sample in an English language school because the researcher is currently employed there. However, the benefits of conducting a larger study are numerous - on the level of the English language industry and wider. The results might be more precise and other aspects of attitudes to computers and satisfaction with online learning could be explored. The findings could be used a strong competitive advantage in terms of talent attraction and retention.

This study was conducted at a particular point in time, which is shortly after the COVID-19 restrictions were lifted. In order to get more detailed insights into attitudes to e-learning, this study should have been carried out just before the pandemic, during the pandemic restrictions when participants were all working from home, and after the restrictions were lifted. A longitudinal study would undoubtedly offer a better breakdown of how attitudes might have or might not have changed in this short period of time. On the level of the company, such research should regularly be conducted in order to anticipate changes in attitudes among employees of different backgrounds and ages.

The future studies should also include statements about the quality of the internet connection in the participants' homes and at work. As mentioned by Rodríguez-Santero *et al.* (2020), it is possible that participants can mark the whole experience of online learning as unsatisfactory

based on just one criterion, such as the internet connection. As shown in this study, technical problems are the top of the list of disadvantages of e-learning, and this should be taken into account in training design.

7 Conclusions and Recommendations

This study has been conducted in a very interesting point in time – just a few months after the COVID-19 restrictions were lifted. In the period of the restrictions, the majority of businesses had to either adapt to remote working, or significantly lose out on profits. This switch meant that employees would need to be trained in remote work, new software, new hardware, and new business procedures. The topic of training has been chosen for the dissertation because it is gaining more popularity in the modern workplace. More and more research link it with productivity, retention, job satisfaction and competitive advantage. This has been outlined in the introduction and the literature review chapter of this thesis. The research then identified the hypothesis and sub-objectives which are referred to in the remaining sections of the dissertation. A quantitative design was chosen for the research, however, the researcher recognized elements of qualitative research too. This was explained in the methodology chapter. Collected data was then descriptively analyzed and summarized in the Findings section. Inferential analysis has also been carried out to establish correlations between the variables. The final results showed a strong preference for face-to-face learning even though participants' attitudes to computers and to e-learning are quite positive. This can have major implications in the workplace.

Based on the conclusions and the findings, the following recommendations are offered:

- 1 The company should continue to have face-to-face training whenever possible. The findings showed a high preference for this type of learning, thus, this should be taken into account in order to improve the teachers' skills and knowledge. The English language sector struggles with attraction and retention so schools can use their training opportunities as a benefit of the job. In order to improve attraction, the school should immediately start improving their face-to-face training so that it suits all employees. It has previously been proven that high quality training builds organizational commitment and reduces turnover (Rondeau et al., 2009). The cost of continuing to have face-to-face training is not considered substantial. However, it is recognized that the school Training co-ordinator function should exist which might create a certain cost.
- 2 The company should slowly start introducing technology into their training efforts as most participants showed a very positive attitude to both computer-based technology and e-learning. Teachers prefer face-to-face learning, but in other aspects of the job, they are happy to use technology. Developing an interactive software or using better quality hardware in face-to-face training might prepare teachers better for the possibility of online learning in the future. This recommendation might be an additional cost to the company as the technology, such as interactive whiteboards and high-quality projectors are considered expensive. However, this cost will pay off in the long-term. Teachers should also be encouraged to use this technology while teaching in order to become more confident in operating it.
- 3 The company should keep developing their online training in order to improve its quality. Many respondents reported lack of interaction as one of the main disadvantages of online learning and this finding can be used to include more interactive activities into the training. The greatest benefit of online training is still cost and time efficiency, so it should not be excluded by the company in their future training efforts. It can also be

a huge benefit for the expansion of the business, for instance, if the school decides to offer online only classes on an international level where teachers could also be recruited internationally and work from home.

4 The company should conduct this type of research on an annual basis to keep up with the demands of the changing demographics in the workplace. Teaching often attracts fresh graduates who might have different demands to those of highly experienced staff. By measuring satisfaction and keeping track of teachers' preferences, the management can predict the future shortages while at the same time developing their own employer brand, characterized by robust training and development opportunities. This will in turn attract more suitable candidates. The costs of conducting informal surveys or even just carrying out a training satisfaction questionnaire are not very high and it can also be done online, saving time and money. This recommendation should be implemented immediately.

8 Personal Learning Statement

Being an education professional, I have always had an interest in professional development and learning. I began developing an interest in HR while working as a teacher. Unfortunately, the HR function rarely exists in English schools. Rather, it is often split between the Director of Studies and the Academic Manager. I started wondering whether these schools would have had a higher performance and job satisfaction if they had had a designated HR function. This sparked my curiosity about human resources. I began the full-time masters in the midst of the COVID-19 restrictions, not knowing the subject well and feeling somewhat insecure about the studies, but still with a strong desire to learn and to soon start developing a career in HR.

I am very happy with my results in the Masters and how well my dissertation turned out. I had never written a Masters dissertation before and this was the most comprehensive piece of academic work I have ever produced . My initial idea in the proposal was to compare face-toface training and online training. I was going to explore three hypotheses:

- a) The assessment of the effectiveness of e-training in Ireland faces the same challenges as the previous studies conducted abroad.
- b) Positive perceptions of previous e-learning experiences do not necessarily result in higher perceived employee satisfaction with e-training.
- c) Employees who perceived face-to-face training as satisfactory will perceive e-training as a more positive experience.

However, during the preparation stage of the dissertation, I was unable to find a suitable survey and other resources to examine these objectives. Finally, after completing the Literature Review, I realized I would have to change my hypothesis and the sub-objectives. My supervisor approved the changes and this dissertation is the final product.

It was my first time conducting a research, and now, in the final stage just before the submission, I see how much I have learned. One of the most important personal takeaways from this thesis is that changes are inevitable in academic research and that having an open mind is a key requirement for a successful researcher. I have learned how to organize my thoughts into a meaningful whole by dividing the work into smaller chunks. I have also learned

that it is crucial to occasionally switch off and recharge. My supervisor Pauline Kelly Phelan has been extremely helpful throughout this process and encouraged me to keep working.

Now at the end of this process, I can honestly say that I have enjoyed working on the thesis regardless of the fact that it has been very challenging. I had to change my priorities multiple times in order to complete this dissertation on time. Juggling a job, personal life and the dissertation has not been easy. However, I am extremely grateful for having the opportunity to do this research and believe that my personal experience as an English teacher has assisted substantially in this research.

I see now that my passion is learning and training since it is a very dynamic area with a strategic importance in the 21st century workplace. I look forward to seeking out opportunities for research as I am developing a career in Human Resources.

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9 Appendices

Appendix 1 – Permission to distribute the questionnaire in the workplace

Permission to use the questionnaire 😕 Inbox × X 🖨 🖸 Ana Miličić <ana.milicicc@gmail.com> to Peter ▼ 🔍 Mon, 25 Jul, 16:27 🔥 🕤 🚦 Dear Peter I'm currently working on my dissertation on online training in the English teaching sector. This research is part of the final stage of a Masters in HRM. I am examining whether positive attitudes to computer-based technology and to online learning positively affect perceived satisfaction with online training among English teachers. I would like to use this opportunity to ask for your permission to distribute the questionnaire among teachers in CES. The survey is conducted online and is completely anonymous and voluntary. Your written permission will be attached in the Appendices section of my dissertation. You will find the NCI ethics form and the questionnaire in Word format attached below Here is the link to the questionnaire: https://forms.gle/48rLabRFKUUZSZqMA Please let me know if any further documentation is required. I understand it is a very busy period for the school and I appreciate all your help and support. Kind regards Ana Milicic 2 Attachments • Scanned by Gmail (i) ± @. W NCI Ethics Applic... W questionnaire for ... Peter Loftus to me 👻 Hi Ana Many thanks for this. We'd be delighted to help. Please let me know if there is anything else we can do to help. Best Wishes, **Peter Loftus** e **Director of Studies Centre of English Studies**



Appendix 2 – **Permission to use the questionnaire**

PsycTESTS[®]

Vocational Teachers' Perceptions of Online Learning Questionnaire

Note: Test name created by PsycTESTS

PsycTESTS Citation:

Hofmeister, C., & Pilz, M. (2020). Vocational Teachers' Perceptions of Online Learning Questionnaire [Database record]. Retrieved from PsycTESTS. doi: https://dx.doi.org/10.1037/t81772-000

Instrument Type: Inventory/Questionnaire

Test Format:

Responses were on a 4-point scale, in which teachers rated comments on a scale from very positive (4: 'Strongly Agree') to very negative (1: 'Strongly Disagree'). There is no "neutral" option with this scale form.

Source:

Reproduced by permission from: Hofmeister, Christian, & Pilz, Matthias. (2020). Using e-learning to deliver in-service teacher training in the vocational education sector: Perception and acceptance in Poland, Italy and Germany. Education Sciences, Vol 10(7), 1-17. doi: https://dx.doi.org/10.3390/educsci10070182

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Appendix 3 – Full questionnaire

QUESTIONNAIRE – ONLINE LEARNING

You are invited to participate in a web-based online survey on Satisfaction with online training in the English teaching sector. This is a research project being conducted by Ana Milicic, a student at National College of Ireland.

The survey consists of 20 questions broken into 4 sections and it takes less than 10min to complete.

Participation

Your participation in this survey is voluntary. You may refuse to take part in the research or exit the survey at any time without penalty. You are free to decline to answer any particular question you do not wish to answer for any reason. However, completing the entire questionnaire will improve the accuracy of the results.

Confidentiality

Your survey answers will be sent to a link at Docs.google.com where data will be stored in a password protected electronic format. Google Forms does not collect identifying information such as your name, email address, or IP address. Therefore, your responses will remain anonymous. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study.

Contact

The results of this study will be used for scholarly purposes only.

If you have any questions about the research study, please contact me at ana.milicicc@gmail.com

Your participation in this research is much appreciated.

Kind regards,

Ana Milicic

Part 1 – Demographics

1 What age are you?

20 - 25

26 - 35

36 - 45

46 – 55

56 and over

2 What is your gender?

Male

Female

Other

3 How long have you been a teacher?

Less than a year

1-3 years

3-5 years

More than 5 years

Part 2 Face-to-face learning vs. online learning

4 On a scale of 1 to 5, 1 standing for face-to-face learning and 5 for e-learning, what is your preferred form of learning?

Face-to-face 1 2 3 4 5 E-learning

5 According to you, what is the main advantage of e-learning as opposed to faceto-face learning?

- a) Time efficiency 1
- b) Accessibility 2
- c) Better structured classes 3

- d) Doing other activities at the same time 4
- e) Health and safety 5
- f) Flexibility 6
- g) Other 7

6 According to you, what is the biggest disadvantage of e-learning as compared to face-to-face learning?

- a) Lack of interaction 1
- b) Technical problems 2
- c) Lack of practical applications 3
- d) Fewer explanations given during classes 4
- e) Harder to learn 5
- f) Other 6

7 On a scale of 1 to 5, what is your level of engagement during e-learning as opposed to during face-to-face learning?

Engagement during e-	1	2	3	4	5	Engagement during face-
learning						to-face learning

8 In comparison with face-to-face learning, the learning effort during e-learning for you is: (changed to 5 scale, from 3)

Much lower	Lower	The same as	Slightly higher	Much higher
		during face-to-		
		face learning		

9 To what extent would you like to return to face-to-face learning after the end of the pandemic?

To a very	To a small	To a moderate	To a large	To a very
small extent	extent	extent	extent	large extent

Part 3 - Attitudes to computer-based technology.

10 I use my computer to generate documents and other materials when necessary. (ACT1)

Strongly disagree	Slightly disagree	Slightly agree	Strongly agree
11 I like working on a c	computer. (ACT2)		
Strongly disagree	Slightly disagree	Slightly agree	Strongly agree

12 It does not take me long to learn to use new software. (ACT3)

Strongly disagree	Slightly disagree	Slightly agree	Strongly agree	
13 I think the computer	is a safe way to learn. (.	ACT4)		
Strongly disagree	Slightly disagree	Slightly agree	Strongly agree	
14 I can hardly imagine	e working without a com	puter. (ACT5)		
Strongly disagree	Slightly disagree	Slightly agree	Strongly agree	
15 I think the computer	is a useful tool. (ACT6))		
Strongly disagree	Slightly disagree	Slightly agree	Strongly agree	
Part 4 - Attitudes	to e-learning			
16 I think e-learning is	a meaningful option for	teachers. (AEL1)		
Strongly disagree	Slightly disagree	Slightly agree	Strongly agree	
17 I see a high level of	need for e-learning in in	-service teacher training. (A	EL2)	
Strongly disagree	Slightly disagree	Slightly agree	Strongly agree	
18 Multimedia packages (animations, videos, etc.) make it easier for me to learn. (AEL3)				
Strongly disagree	Slightly disagree	Slightly agree	Strongly	

Strongly disagree	Slightly disagree	Slightly agree	Strongly
			agree

agree

20 I think e-learning fits better into my working schedule than other types of learning (e.g. workshops). (AEL5)

Strongly disagree	Slightly disagree	Slightly agree	Strongly
			agree

Appendix 4 – Cronbach Alpha calculations for Attitudes to Computer-based technology and E-learning

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.818	.832	6

Reliability Statistics

Inter-Item Correlation Matrix

	ACT1	ACT2	ACT3	ACT4	ACT5	ACT6
ACT1	1.000	.683	.447	.337	.468	.240
ACT2	.683	1.000	.437	.451	.493	.352
ACT3	.447	.437	1.000	.267	.506	.140
ACT4	.337	.451	.267	1.000	.659	.704
ACT5	.468	.493	.506	.659	1.000	.588
ACT6	.240	.352	.140	.704	.588	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ACT1	15.79	10.547	.608	.508	.784
ACT2	15.82	9.403	.661	.538	.772
ACT3	15.79	11.110	.494	.362	.808
ACT4	15.76	9.689	.600	.601	.788
ACT5	15.36	9.489	.729	.609	.755
ACT6	14.82	13.091	.548	.545	.817

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.652	.667	5

Inter-Item Correlation Matrix

	AEL1	AEL2	AEL3	AEL4	AEL5
AEL1	1.000	.448	.180	.381	.375
AEL2	.448	1.000	.172	.479	.114
AEL3	.180	.172	1.000	.558	010
AEL4	.381	.479	.558	1.000	.163
AEL5	.375	.114	010	.163	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
AEL1	12.97	3.908	.543	.331	.545
AEL2	13.00	3.697	.439	.329	.582
AEL3	12.79	4.471	.310	.334	.639
AEL4	12.85	3.463	.593	.486	.504
AEL5	13.44	4.133	.217	.160	.704