

# Free Online Training and Value Perception in France

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**Abstract:** Digital training has taken on a major place in our society with the health crisis. Among the many online training offers available, some are free of charge, so that the user does not have to pay for his or her learning, and we can sometimes wonder about the value of these training courses: do they offer the same quality as the paid ones? After collecting data from 245 people, our study shows that the price of an e-learning course does not necessarily influence the value that the user attributes to it, and that a free course can have the same value and interest as a paid course. Moreover, free training is a significant marker in the decision-making process: it gives the training an additional benefit, which goes beyond the mere monetary savings made, compared to the same paid offer. Therefore, free training can give the user the perception of a greater general benefit than paid training.

## 1 INTRODUCTION

Associated with non-market and humanistic values, the notion of free goods carries the seal of sharing, and humanity has functioned for centuries without systematically trying to put a price on objects and services. However, the idea of the commons - belonging to no one - has shrunk to a trickle since the term *market* no longer refers to a gathering of a few merchants in a village square on a Sunday morning...

A utopia, free access? For Heyman and Ariely (2004), there is, alongside the money market, a "social market" in which gift, friendship, social ties exist. Nevertheless, when the two markets - monetary and social - coexist, inevitably the former tends to take over the latter (Heyman and Ariely, 2004). As soon as money intervenes, the value of the donation is immediately degraded and what remains of free becomes suspicious.

This explains why, in consumer society, we are so wary of the word "free": we find it difficult to extend the social market beyond the sphere of family or friends. As a result, depending on the circumstances, it may be in one's interest to use the term *free*, or on the contrary, one may seek to conceal it - to avoid suspicion - by insisting more on the idea of freedom in the proposal instead of the absence of price.

Our study concerns the free aspect of online training, and in this field, the Internet has contributed

in recent years to restoring a place for free by opening up access to a large number of unpriced services in the field of knowledge and training: collaborative online encyclopaedia (Wikipedia), open source software, freemiums, MOOCs (although payment is sometimes made on the certificate), videos and tutorials on YouTube, etc.

However, what value can one attribute to this free access? Wikipedia has long suffered - and still suffers, despite its massive use and recognition by the scientific community - from its free nature, with a reputation of being a non-quality product, containing erroneous information, which should absolutely be distrusted (Hu et al., 2007). The same applies to free online training courses: produced with funding other than that of users, with intentions not always clearly expressed, they can be the object of distrust.

How can the public, accustomed to gauging the quality of products through the prism of the money market, choose quality products if the market value is not quantified by an explicit price, and if the value itself - in terms of quality and potential benefit for the user - is not legible as a result?

In this study, we will therefore look at the extent to which price can influence a user's decision-making process when choosing between paid and unpaid e-learning. Can a free course have the same value and interest as a paid course in the user's perception? Is

free training a marker in the decision-making process for choosing a course?

First, we will review the different articles in the literature related to the notion of free training, in the purchase decision processes and in the links that can exist with e-learning. We will then outline the research methodology used, explaining how we sought to verify the hypotheses posed before the survey was carried out for this study. Finally, we will discuss the results obtained, their significance, and the new studies that could be carried out to enrich this theme.

## 2 LITERATURE REVIEW

### 2.1 A Plurality of Representations of Free Access

#### 2.1.1 State of the Art

To take stock of the situation of free access in our society is to measure from an economic, but also a social, ethical or political point of view, what remains of non-market relations in human affairs.

Caillé and Chaniel (2010) recall that this question was a major issue in the aftermath of the Second World War when the Universal Declaration of Human Rights was drafted (1948), particularly with regard to access to knowledge, education, health and protection against unemployment. Equality of opportunity between individuals is conceived as the mark of unconditional human dignity, and this must be non-market, and therefore free, the glue of a society built around an ideal of human progress.

However, Caillé and Chaniel (2010) believe that this idealistic discourse, which seeks to re-enchant the world in the aftermath of a barbaric conflict, is now undermined by “the splintering of the discourse on free access into three totally disjointed, if not opposed and contradictory, blocks”:

- The first discourse focuses on the fact that nothing is free in the natural state: global warming proves that Nature no longer has anything free to offer us and we cannot count on it. There is therefore a conflict between those who want to monetise the depletion of natural goods, for example by using “rights to pollute”, and those who support the need for negative growth on a global scale.
- Since the 1980s, a second discourse has been put forward by the proponents of neo-liberalism and *homo oeconomicus*, sweeping away centuries of economic and social functioning centred around

the notion of non-profitable exchanges (peasant cooperatives, hospitals administered by religious people, etc.): there is no longer any place for free services in this world, and public services themselves are destined to give way to a generalised subjugation to the principle of financial assets. There is no area where privatisation has not extended its reach: education, health, pensions, insurance, energy, mail, personal services, etc. The spirit of efficiency and profitability has penetrated into unsuspected areas, for example through fee-for-service pricing in French hospitals or the analytical and normative accounting of the number of daily reports drawn up by police officers. Money is no longer a simple means, but the means “par excellence” and therefore an end in itself, the universal regulator of human relations. Caillé and Chaniel quote Georg Simmel (1987): “Money, the absolute means and therefore the meeting place of innumerable teleological series, has a significant relationship, psychologically speaking, with the idea of God... The profound essence of the divine thought is to unite in it all the diversities and contradictions of the world.”

- A final discourse is based on the universalization of free access promoted by the Internet. Numerous services are freely accessible, without monetary compensation, whether it be information (articles, studies, databases, images), open source software, or search engines, including in the cultural domain. Is the web the place for community resistance to the capitalist organisation of the world, for the invention of a public space accessible to all and defined as a common good? For Anderson (2009), an apostle of free software, there is no doubt about it, “we are entering an era where free access will be considered the norm and not an anomaly.”

#### 2.1.2 On the Scarcity of Free?

For Grassineau (2010), this original and intrinsic presence of free on the Internet questions precisely the widespread presupposition of considering free as a rare and abnormal phenomenon. For him, on the contrary, free access, in a Copernican reversal of perspective, calls into question the reliability and validity of the dominant beliefs in the orthodox market economy.

In his study on the case of the Wikipedia project, he first proposes a descriptive typology of the different types of gratuity: natural / constraint /

networked / commercial. In the latter case, for example for free newspapers, the economic model is tripartite: "advertisers pay for the media to reach consumers, who will make advertisers live." Anderson (2009)

For Grassineau (2010), gratuity questions our representation of commitment to work, or even the entire economy: since on the Internet intrinsic motivations prevail in collaboration networks (many Internet users spend hours contributing to the functioning of Wikipedia, without any remuneration), why does the labour economy of the whole society not work on this model?

### 2.1.3 Free versus Gratuities

The magazine *Vacarme*, in its issue devoted to free (n°50, 2010), stresses that we are not dealing with the general idea of free, but with different gratuities, which can be classified according to the different methods of production:

- Free as the production of a non-market sphere in the economy, conquered thanks to socialized financing: this is the model of the school, libraries, hospital, and the very definition of public services.
- Free access as a refusal of individuals to submit to the laws of the market - piracy, free software, cooperative work - "all forms that creep into the folds of capitalism, develop spaces or undermine it from within".
- Free as an element of the consumer society and its sales techniques: free products calling for paid versions, or financed by advertising or derivative products.

### 2.1.4 Free of Charge and Price: Non-monetary Costs

Free does not necessarily mean disconnected from the concept of price: what one does not pay with money can however represent a cost: the time one spends in a task, whatever it is, the intellectual or physical efforts that it supposes, the sacrifices or compensations that are required in the operation, so many non-monetary costs that the contemporary economy struggles to quantify and really take into account.

For example, Le Gall-Ely et al. (2007) studied the impact of the lack of pricing at the entrance to museums, and the obstacles that prevent a massive attendance subsequent to this offer, as it is in the United Kingdom in National museums, or in France on the first Sunday of each month or on heritage days:

"Other non-monetary efforts are reinforced, even created, by gratuity (...). In this context, the free entrance fee represents only the elimination of one of the direct monetary efforts of the visit: an absence of an entry price within an overall price".

If we do not contribute monetarily to a benefit we receive, we always pay with a part of ourselves: our time, our attention, our energy.

## 2.2 Link between Gratuity and Value

It is difficult not to associate the notions of price, cost and gratuity, with the concept of *value*... Gratuity is often perceived as an indication of the intrinsic lack of value, but the latter term can seem complex to define precisely.

### 2.2.1 Exchange Value and Use Value

According to Aurier et al. (2004), value analysis must be viewed from the consumer's point of view. It is approached in marketing from two perspectives, global or analytical, which correspond to the traditional dichotomy of economists between Exchange Value and Use Value:

- Exchange value: For Zeithaml (1988), this corresponds to "the overall assessment of the usefulness of a product based on perceptions of what is received and given". What is received is perceived as a benefit or a profit; what is given constitutes a set of sacrifices, monetary and/or cognitive costs. Since evaluation compares benefits with the sacrifices associated with consumption, it is therefore the relationship between benefits and perceived sacrifices (Grewal, Monroe and Krishnan, 1985). Perceived value increases with benefits, and decreases with sacrifices. According to the neoclassical theory of economics, the "rational" buyer, as a good calculator, will choose the offer whose value offers the best compromise.
- Use value: it refers to "a relative preference (comparative, personal, situational), characterizing the experience of an individual interacting with an object" (Aurier et al., 2004). Extensive experience reduces perceived risk and limits the search and processing of information. The consumer will then trust his routines. On the other hand, a weak experience will lead him to look for information to cope with uncertainty.

According to more pragmatic and interactionist theories, value is neither intrinsic to the good itself – not consubstantial in a way – nor totally subjective,

even if there are undeniably variations from one subject to another. It is simply "updated during an interaction with a subject" (Marion, 2013).

For Baudrillard (1972), quoted by Poels and Hollet-Haudebert (2013), "once exchange value is neutralized in a process of giving, free access, profligacy, expenditure, use value itself becomes elusive".

As a result, when there is free, the dual relationship Exchange Value / Use Value disappears to be replaced by the relationship Sign Value / Symbolic Exchange Value. The latter can, in the context of free visits to museums or monuments, be understood as the social meaning devolved to a good or service (Bourgeon-Renault et al., 2009): society speaks through the individual.

### 2.2.2 Free of Charge and Offer Devaluation

Free of charge often has a depreciative connotation, and studies show that a zero-price offer will be perceived as having less value than the same offer in its paid version (Gorn et al., 1990). Devaluation can also apply to the perception that the individual has of himself by using the free service (Protas, 1981).

For this purpose, Poels and Hollet-Haudebert (2013) conducted an exploratory study on free newspapers distributed in the subway, which are generally considered of lesser quality than those purchased on newsstands are. Their survey, based on observation and interviews, shows that readers of these free newspapers hold a depreciative discourse on the content, having few expectations of the quality of the articles; they handle the object itself unceremoniously, throwing it away very quickly or abandoning it on a seat. Conversely, paying for a traditional newspaper marks a commitment and recognition of the work of others.

More generally, the interviews show that the social image interferes and that there is a "contamination" between the newspaper and its readership: reading only free newspapers is considered very insufficient by the respondents. However, these reading media are widely used, and the authors highlight the paradox of never really including oneself in the readership of free newspapers despite the uses.

Against all odds, the most interesting advantages identified by the authors are not played out from the point of view of individuals, but more generally from a social point of view: "The use of free newspapers gives opportunities for social exchange, thanks to easy access to information, it is a lever for social inclusion and enhancement of the social image."

Reading free press makes it possible to maintain a minimum degree of information necessary for exchanges around the coffee machine. In addition, leaving the newspaper on the subway seat allows other transit users to read it, creating invisible connections between people.

Moreover, from a societal point of view, the interviews show that individuals attach great importance to the culture of free access and that the newspaper becomes an example of this in the same way as other cultural goods such as music and films (which are themselves the subject of collective reappropriations that are not always legal).

The "devaluation" of the free offer can therefore be compensated, in the end, by its ability to become a rewarding marker of a positive social model, based on the right to information, the democratization of access to cultural goods and on the notion of sharing.

## 2.3 Impact of Free Access on Behaviour and Decision-making Processes

### 2.3.1 The Irrational Force of Free Access

Free access has an appeal that simply goes beyond saving money, and some authors have showed that the traditional economic theory according to which people "rationally" choose the option with the greatest cost-benefit difference is not effective when free interferes.

Thus, Shampanier et al. (2007) conducted a study to show the quasi-magical effect of free: during an experiment conducted on students who are offered a quality chocolate (Lindt) at 15 cents and another of lower quality (Hershey's) at 1 cent, 73% of individuals opt for quality at the expense of the financial economy; on the other hand, if we maintain the same difference between the two chocolates (of the order of 14 cents), but the second is free, 69% of individuals will choose the latter to take advantage of the windfall of free, paradoxically willing to eat a chocolate recognized as inferior and which they did not want in the first experience.

For the authors, when an object is free, the perception of losses and sacrifices disappears, along with the rationality of *homo oeconomicus*: faced with a choice, people do not simply subtract the costs of the benefits, but rather perceive the benefits associated with free products as higher. The zero price of a good not only cancels out its cost, but also adds to its benefits.

### 2.3.2 Reduction of Perceived Risk and Authorisation of Error

Free admission can also remove certain physical and psychological barriers that hitherto inhibited action, for example in a museum context: for some visitors, the process of crossing the doors of a cultural establishment can be facilitated by the absence of pricing, and free access thus intervenes in the decision-making process (Bourgeon-Renault et al., 2009). The public concerned feels that there is little "risk" of making a mistake when entering a museum if it is free, and the negative consequences of a bad choice are reduced anyway: "Free would act as a stimulus to the consumer's exploratory trend. Regardless of the probability of error that may remain high, this right to trial allows you to enter a museum or monument simply out of curiosity." (Bourgeon-Renault et al., 2009)

However, regarding the link between free admission and museum attendance, all authors of the literature agree that, without educational and cultural support, making museums free is not enough to bring the most culturally distant audiences to this very specific universe. Free access alone cannot change the decision-making process in this context.

### 2.4 Value and Training

Since our study seeks to analyze the impact of free education on the decision-making process in a training context, it is necessary to recall here what makes it possible to measure, according to the literature, the value of training.

Bourgeois (1998) in his study on engagement in training refers to the paradigm of expectancy value developed since the 1970s: "The individual will be all the more willing to engage in training, to consent to its costs, that on the one hand, he is sufficiently convinced that the training envisaged will actually bring him benefits (and that these are sufficiently important, for him), and that on the other hand, he considers his chances of success in the company sufficiently high."

The estimation of the value of a training strongly depends on the benefits perceived by the user for his life, at a given moment in his trajectory. Let us recall the four categories of motivations listed by Biggs and Moore (1981) to qualify these perceived benefits, cited by Bourgeois (1998): extrinsic / social / related to self-fulfillment / intrinsic motivations.

The reputation of a training institution can help create a positive expectation and increase the value that can be attributed to training, to minimize

uncertainties during the upstream evaluation process. Thus, the public is still interested in the many judging devices - such as the Shanghai ranking - that compare and prioritize educational institutions with each other, in order to infer a "value" of the training offered, even if it is clear that the classification operation has itself become a commercial institution (Mignot-Gérard and Sarfati, 2015).

In reality, how can one presume the value of a proposed training, especially if one does not have information on the context or on the reputation of the training organization that delivers it?

Faced with a new offer, we can think that the user will use his imagination - subject to many influences, and constantly reconfigured - to make a value judgment according to the possibilities of action of a good (its updatable performance) and the sacrifices it implies.

Rivière (2015) demonstrates, however, in a quantitative study conducted among 828 individuals on the public's perception of new offers in the automotive sector, that upstream of the adoption process, the perceived value of a novelty is only influenced by its perceived benefits: it is not affected by the perception of the sacrifices to be made. The glare caused by novelty seems to stand in the way of considerations perceived as unpleasant, and reason has difficulty interfering when seduction operates (which intuitively, one would tend to consider as generalizable beyond the simple field of the automotive sector...).

### 2.5 Overview

It is difficult to find in the literature studies on the perception of the quality of free online training, because the concept of free training is sometimes considered as the prerogative of the public sector (and the question of free training is quickly evacuated as self-evident), and sometimes closely associated with marketing strategies in the private sector (freemiums, loss leaders and samples), which is not the model proposed by the company concerned by this research, as the user of the training is never financially solicited.

On the other hand, some of the studies dealing with the notion of price in online education concern university models that involve collaborative practices between students, which are rewarding and which therefore lead students to consider that content and interactions are more important than price. Again, this is not the model we propose to study, since the company in question here offers individual training with very limited interaction.

Moreover, studies on free education often concern objects, and more rarely services. It is therefore very difficult to consider training as a consumer good like any other, since the non-monetary costs of any training are at least as important as the monetary costs: training requires effort, or even a total commitment on the part of the user; there is no such thing as "passive" consumption. Buying a course is just giving oneself the opportunity to start the learning process.

Finally, the problem of uncertainty remains a thorny one in the decision-making process: how can a course be evaluated before the course itself has been experienced? The user's perception of training courses (free or paid) and of the value he or she may attach to them (and therefore of his or her future commitment to learning) is based on subjective criteria and previous experiences, and the user's evaluation often consists of trying to compensate for the uncertainty as best he or she can, by betting that his or her choice is judicious.

It therefore seems necessary to take an interest in this evaluation upstream of the training, which the future user undertakes, and to measure the link or influence that the price may have on the perception that one has of this training, from the point of view of its quality and in terms of the benefits that one can hope to obtain from it.

## 2.6 Research Hypotheses

First of all, since free of charge can have a depreciatory connotation and a zero price offer can be perceived as having less value than the same offer in its paid version (Gorn et al., 1990; Poels and Hollet-Haudebert, 2013), we will try to verify the influence of the price in the qualitative evaluation made by the user in the context of the decision-making process of a training choice.

We therefore put forward an initial hypothesis as follows: The more expensive a training course is, the more it is considered as qualitative by the user (H1).

In this hypothesis, the factor is the price, and the Dependent Variable (DV) is the quality appreciated by the user. The factor and DV will be varied according to ordinal scales.

Furthermore, we have seen in the literature review that the zero price exerts an irrational force in the purchasing decision process (Shampanier et al., 2007). Since this effect leads to the benefits associated with free products considered higher than when they are paid for, we will try to verify that this effect can be exerted in the same way when the user

evaluates the hypothetical benefits of a training course.

We therefore put forward a second hypothesis as follows: When the price of a training course is equal to zero, the benefit can be considered by the user as higher than that of a paid training course, even a cheap one (H2).

In this hypothesis, the factor is the price, and the Dependent Variable (DV) is the benefit assessed by the user. The factor and DV will be varied according to ordinal scales.

## 3 METHODOLOGY

### 3.1 Participants

In order to collect sufficient data to achieve our research objectives, an internet survey was conducted among a population that does not have an account on the company's platform *My Green Training Box* (from which the videos used were taken) and therefore cannot recognise the online video trainings used in the survey, so as not to be influenced in their answers.

The survey was conducted via the internet through *LimeSurvey* during July 2021. More than 500 people were contacted by email or social networks. No selective recruitment was carried out. 143 women and 102 men responded to the survey.

Data is securely and anonymously stored on the *LimeSurvey* server at the University of Toulouse, in compliance with the General Data Protection Regulation.

### 3.2 Experimental Set-up

#### 3.2.1 Basic Set-up

After the usual questions on the identification of participants (gender, age, socio-professional category, experience of online training) and individual consent to take part in this survey anonymously, the system offers to watch a one-minute video presented as an extract from an online video training course.

Underneath the video is a description of the complete training course, consisting of a general presentation, 10 video modules of 3 to 4 minutes each, accompanied by PDF files and podcast contents, and an end-of-course assessment, leading to a certificate. The price of the training is mentioned below, chosen among these three values: 0 € (free training), 20 € (cheap one), 150 €.

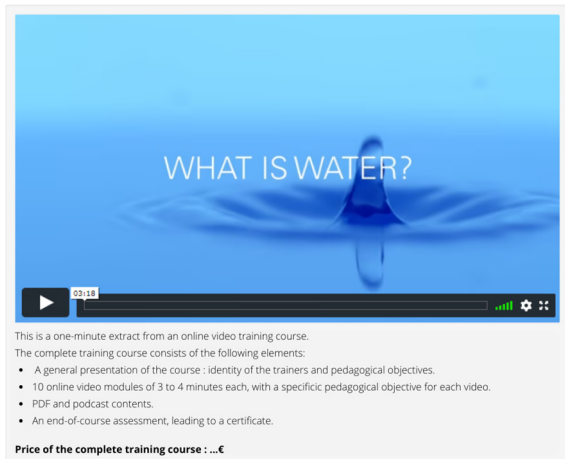


Figure 1: Description of the course.

Two compulsory questions follow this presentation, one on the perception of the quality of the proposed training, the other on the general benefit (personal, financial, etc.) for the user of attending this training

For each question, the participant is asked to give his or her opinion on a 5-point Likert scale as follows:

According to these criteria, what is your perception of the quality of this training? Very low quality training / Low quality training / Correct quality training / High quality training / Very high quality training.  
 In your opinion, what can be the general benefit (personal, financial...) for the user to follow this training? No benefit / Low benefit / Moderate benefit / High benefit / Very high benefit.

Figure 2: Scales for quality and benefit.

The basic set-up can be summarised as follows (Figure 3):

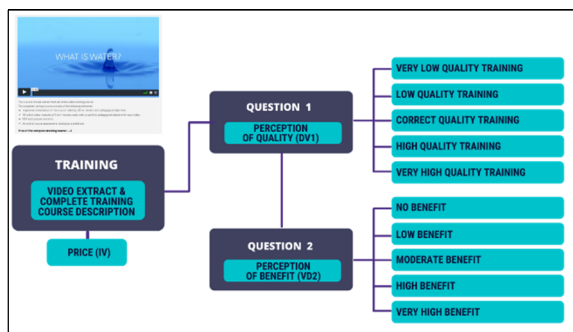


Figure 3: Basic set-up.

### 3.2.2 Extended Set-up

In order to obtain more data and to avoid the results being dependent on a single training video, the basic set-up is repeated three times for each participant. Three different video extracts of equal quality and length are used from online training courses offered by the company *My Green Training Box* on sustainability-related topics (water, habitat, health), with all identifying marks (logos) removed.

For each of the three training courses, the price varies according to the three values (0 €, 20 €, 150 €)

Table 1: Combinations.

COMBINATIONS	TRAINING 1	TRAINING 2	TRAINING 3
1	0 €	20 €	150 €
2	0 €	150 €	20 €
3	150 €	0 €	20 €
4	150 €	20 €	0 €
5	20 €	0 €	150 €
6	20 €	150 €	0 €

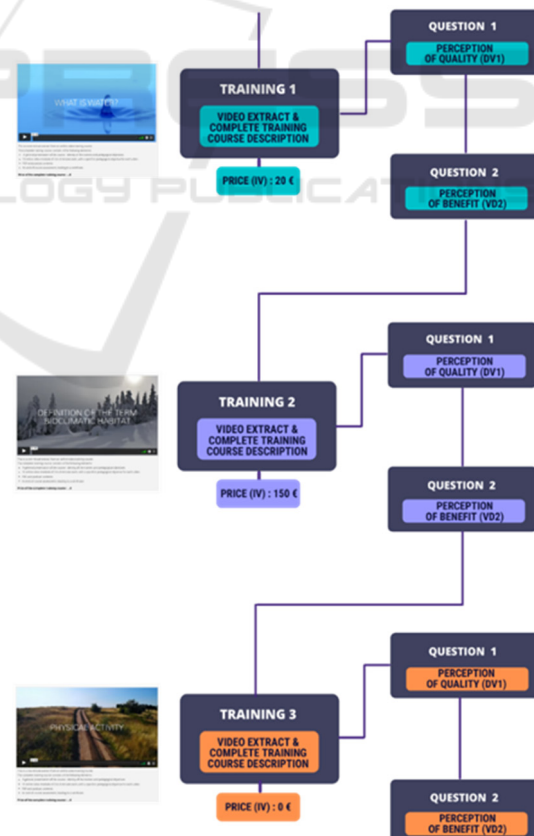


Figure 4: Example of extended set-up.

corresponding to the general modalities chosen for the experimentation (free / cheap / expensive training). The order effect is counterbalanced.

This results in the example of an extended scheme for one participant below (Figure 4). The example used in Figure 4 corresponds to combination 1 in Table 1.

All answers are compulsory, but participants can go back in the questionnaire and change their previous answers, once they have understood that the price varies from one course to another.

Since the three videos are considered equivalent, the data obtained from the three training courses will be aggregated for the analysis, after checking that there is no influence of the training video or the order of presentation on the responses.

## 4 RESULTS

### 4.1 Sample

Of the 500 participants approached, 245 people completed the survey. From this sample, a profile can be drawn up with the following characteristics.

A majority of women responded to the survey, 143 versus 102 men. The average age of the participants is 52 years (50.5 years for women, 54.5 years for men).

The most represented socio-professional category is managers and professionals (32%), followed by retirees (24%) and employees (16%).

In the sample, half of the participants have never taken online training, although the proportion is lower for women (45%, compared to 57% for men).

### 4.2 Descriptive Processing of Data

The price factor and has three values/modalities (150 € = expensive / 20 € = cheap / 0 € = free); the DVs are called "Training Quality" and "Training Benefit"; each has 5 modalities, coded from 0 to 4 for the statistical analyses.

It can be seen initially that the median for the three price groups is at the level of the intermediate modality 2 (Correct Quality / Moderate Benefit), as can often be seen in a 5-point Likert scale (Min 0 – Max 4). When in doubt, participants often respond with a value that is not binding on them and that they consider neutral.

When we look at the frequencies (Tables 2 and 3), we can see that the perception of the quality of a training course does not systematically lead to a perception of the benefit according to the same

modality: thus, while the perception of the quality of the training courses presented is mostly perceived as *correct* (and therefore centred around modality 2 - *Correct quality* - of the DV Training Quality), the responses concerning the benefit provided by these same training courses are more dispersed over modalities 2 (*Moderate benefit*) and 3 (*High benefit*).

Tables 2 and 3: Frequencies.

Training Quality	Price		
	0	20	150
0	3	6	5
1	33	32	49
2	135	139	117
3	61	55	64
4	13	13	10

Training Benefit	Price		
	0	20	150
0	8	6	6
1	30	39	57
2	95	105	95
3	94	81	76
4	18	14	11

This suggests that a training course judged to be *correct* (modality 2) may provide a greater benefit than moderate (modality 2), whereas intuitively one might think that there is a systematic correlation between the perception of quality and the benefit that can be expected from it (the greater the quality, the greater the expected benefit).

The dispersion of values increases as the price of the training increases. In our sample, the price does not appear to be a guarantee for the participants, either in terms of quality or in terms of general benefit.

### 4.3 Inferential Statistics

In order to evaluate our hypotheses and to generalise the results of our sample to the whole population, we carry out a rank comparison test between the groups 0 € / 20 € / 150 €, which correspond to the 3 modalities of the main factor.

Since all the variables are ordinal and the 3 groups can be considered as independent, we carry out a non-parametric ANOVA with the Kruskal-Wallis test. The ANOVA is one-sided, since we assume the existence of a difference in one direction only (an effect of price on the perception of quality and expected benefit). We are looking for the ratio between the inter-group variance and the intra-group variance.

Since the three groups are considered independent samples, independence is respected within the groups, and the measurement scale is ordinal, the conditions for using the test are respected.

Care is taken to check that the training course (whose content is identified by a number) and the order of presentation have no effect on perceived quality and benefit, also by means of a non-



parametric ANOVA, in order to aggregate the data from the three training courses.

The following results are in table 4:

Table 4: Non-parametric ANOVA about price over quality and benefit.

	$\chi^2$	df	p	$\epsilon^2$
Training Quality	1.36	2	0.506	0.00185
Training Benefit	8.56	2	0.014	0.01166

There is a significant effect of price over the Training Benefit measure ( $p=0.014$ ). On the Training Quality, there is no significant effect ( $p=0.506$ ).

The strength of the experimental effect is measured by the proportion of variance in the benefit explained by the price and is denoted by the epsilon squared, which is 0.01166 here. We can conclude that the effect of the price on the perceived Training Benefit is small, but it does exist.

The sample pairs are compared for the DV Training Benefit using the Dwass-Steel-Critchlow-Fligner test (Table 5).

Table 5: Pairwise comparison test.

		W	p
0	20	-2.14	0.284
0	150	-4.08	0.011
20	150	-2.09	0.303

The effect of the price on the perception of the Training Benefit is visible and generalizable between the values 0 € and 150 €.

The hypothesis is partially verified for the Training Benefit, which allows us to confirm the first part of H2: *When the price of a training course is equal to zero, the benefit can be considered by the user as higher than that of a paid training course.*

The second part of H2 (*When the price of a training course is equal to zero, the benefit can be considered by the user as higher than that of a paid training course, even a cheap one.*) cannot be verified here: there is no significant difference in the perception of benefit between training courses at 0 € and 20 €, nor between training courses at 20 € and 150 €.

Detailed analysis not exposed here make it possible to identify more precisely the factors that influence the general result, thus confirming our hypothesis H2. Women over 50 years of age, not belonging to the category of executives and higher intellectual professions, attach the most importance to the difference in price between paid training, even if it is not very expensive, and free training, when it comes to measuring the general benefit that this may represent for the user.

## 5 DISCUSSION

The results of our study show that there is no evidence of a significant influence of the price of a training course on users' perception of the quality of an online training course: it is not because a training course is presented as expensive that it is perceived as more qualitative than a training course presented as free; a free training course does not therefore seem to be perceived as less qualitative than a paid course. In the sample itself, the statistics even tend to show the opposite effect. In this sense, our first hypothesis is not verified: it cannot be said that price has a clear influence on the value attributed to a training course; it is not because a training course is expensive that it is necessarily considered as qualitative by the user.

As regards the general benefit that a user can expect to derive from an e-learning course, our study shows the presence of a slight effect of price on this perception of benefit for the future learner: if the e-learning course is presented as expensive, the general benefit appears to be less important. A free course is more interesting from this point of view for the user, which allows us to verify a large part of our second hypothesis: when the price of a course is equal to zero, the benefit can be considered by the user as greater than that of a paid course.

However, the existence of the "zero effect" cannot be verified by comparison with a low price, as described by Shampanier et al. (2007). It seems that the perception of benefit for the online courses proposed here is based more on the contrast between the free courses and the more expensive ones: the "zero effect" only works in this context, as far as our study is concerned.

Various explanations can be found for the fact that free education does not seem to influence the perception of quality in e-learning, contrary to what can be found in the literature on the devaluation suffered by e.g. free newspapers (Poels and Hollet-Haudebert, 2013).

It is assumed that part of the public is used to learning on the internet, for example by looking for a way to perform a specific task by watching a free tutorial on social networks. Online resources offer the possibility to develop one's knowledge and skills in an unlimited and independent way, without considering direct monetary costs (one still has to pay to access the internet). Price may not be an important factor in the decision making process of Internet users when choosing an online resource to learn how to perform a task or obtain specific information.

We can also consider that the study itself - proceeding by iteration - has induced a form of "levelling": the same training format having been offered three times to each participant (since we only vary the price), one can consider that the 3 successive training courses are similar and thus no longer pay attention to the price. Moreover, the 5-point Likert scale often leads to choose the middle option as a "neutral" solution, to avoid having to make a clear statement. The solution would be to ask participants about a single course (instead of 3), still with a random price, with a 4 or 6 point Likert scale, to avoid this repetition and levelling effect.

We could also check the participants' level of knowledge about the topic addressed in each video, as well as the impact that this video may have on this specific knowledge: both elements could have an influence on the two DVs.

As far as the perceived benefit is concerned, our hypothesis H2 is partially verified and goes in the direction of the literature, which considers that there is an additional and irrational benefit consubstantial with free access. However, we can recognise that the effect is quite small for our study and seems to be limited to one category of people, women over 50 years old and non-managers: are they less used to online training? Are they more sensitive to spending money wisely? One can also wonder whether the perception of "cheap" / "expensive" varies according to socio-professional categories.

Furthermore, the way in which the questionnaire was conducted - via the Internet - only allows it to be addressed to a category of people who are used to using this method of communication. It should also be remembered that the questionnaire was not fully completed by some of the people contacted.

It is regrettable that there are few studies on the impact of free access on the decision-making process for digital training. However, there is no doubt that online training is becoming increasingly important due to the health crisis, and in order to be trained, one has to make a choice among all the proposals.

Whether we like it or not, free education is closely associated with the notion of training: state schools have instilled the legitimacy of access to knowledge in us at a very early age. Lifelong learning is therefore a right, and free education is an important modality, which research will certainly explore in the years to come.

## 6 CONCLUSION

Our study has shown that the price of an e-learning course does not necessarily influence the value that the user attributes to it, and that a free course can have the same value and interest as a paid course.

Moreover, free training is a significant marker in the decision-making process, and our study has shown this in the second hypothesis put forward and partially verified: free training confers an additional benefit to the training, which goes beyond the simple monetary savings made compared to the same paid offer. As a result, free training can give the user the perception of a greater general benefit than paid training.

It is therefore tempting to say that there is no reason to doubt the "value of free training" in digital training, and that it may be an interesting development model for companies not to make their users pay the online training courses they create. What remains now is to convince funders of the benefits of contributing to a social model based on the foundation of free education - a benefit that would take the form of a supplement of soul.

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