

ITALK - A PLATFORM WHERE YOU LEARN TECH TERMS IN A FUN AND  
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EASY WAY

by

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### **Abstract**

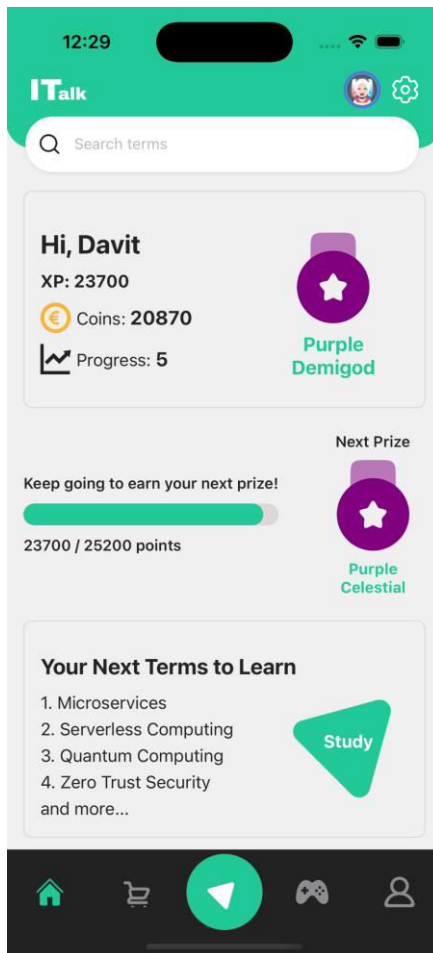
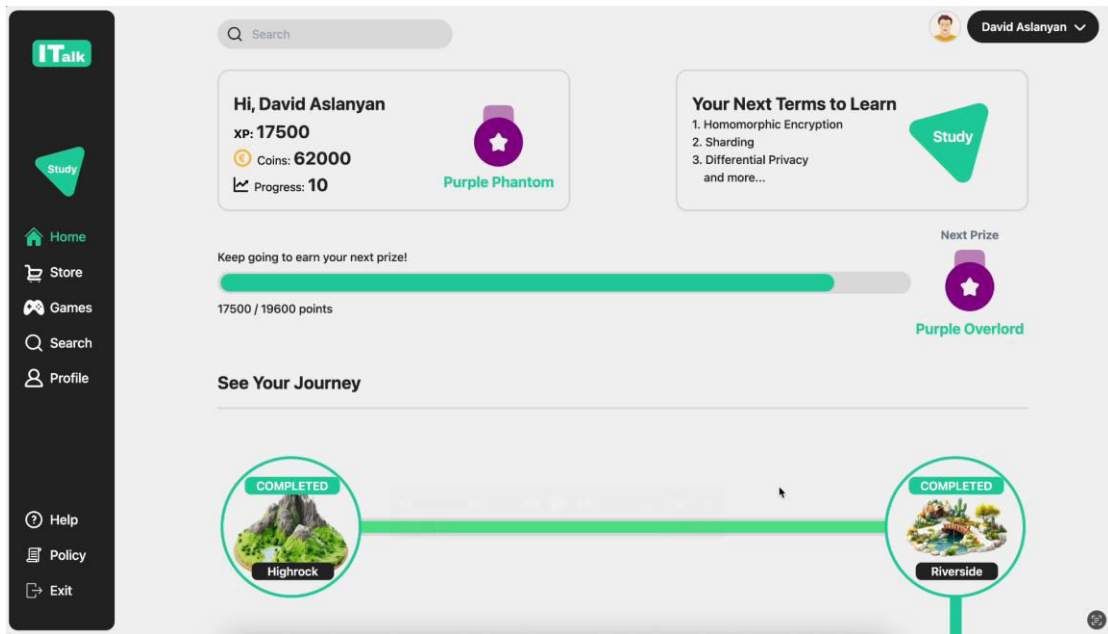
This is a creative project aimed at providing a solution to an ongoing miscommunication problem in the workspaces. The following paper will introduce the issue, which is the difficulties of non-IT people communicating with IT staff, by providing justification through sources and personal experience. After a thorough examination of the problem, the solution will be introduced: the **ITalk** application (the visuals and a detailed demo of the app are provided below this paragraph). The paper will explain how the app operates step by step, and then it will dive into the “why” question behind each step. As the app focuses mainly on gamification techniques, the paper will discuss exactly how and why these techniques were implemented in the app. Still, the explanations will not go deeper into technical parts, and instead focus mainly on the business side and human psychology. ITalk is a potential startup that aims to solve a real-world problem, and its idea is worth sharing both as a ready-made application and a research paper.

ITalk Web Demo - [https://youtu.be/j\\_UEGi6OwG8](https://youtu.be/j_UEGi6OwG8)

ITalks Mobile Demo - <https://youtu.be/o4-YWLZhiZM>

# ITALK - A PLATFORM WHERE YOU LEARN TECH TERMS IN A FUN AND EASY WAY

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(ITalk, 2025)

## **Introduction**

In recent years, the number of IT companies has gradually increased, and with them, the need for software developers, IT managers, graphic designers, quality assurance specialists, and other IT-related specialists has become very high worldwide. Even though each sphere is completely different from the others, they all work on the same project, and they need to communicate across teams to work effectively constantly. So, keeping communication is essential; however, there is a problem. As the job of software developers is to write code, their communication differs a lot from the ordinary communication we are used to because they constantly use specific, pre-defined terms for many things related to their job. There are thousands of specific terms they use to approach the problem, which, from the perspective of a non-programmer person, can seem wild. This is normal, but when the manager or the designer lacks the knowledge of basic IT terms the programmers use to explain their job, a miscommunication occurs. Managers and designers have no idea what programmers are talking about, and programmers are struggling to explain by teaching them what that word or another word means. As a result, the work takes longer as all the workers try to understand each other, which can cause productivity to suffer. As I work as a programmer myself, I find this a very common problem in our company. Whenever I need to communicate with another team, I prepare all the terms with explanations that even a five-year-old would understand, and then speak with them. This, of course, takes a lot of time, which could be used much more effectively. That is why a solution is needed to this problem, which I hope can be achieved through a simple platform- A simple e-learning platform that teaches the IT terms from the most basic to the most

advanced with various fun exercises and constant practice. Anyone, regardless of their role in the company, after spending a few days playing with the platform, may learn quite a few IT terms that are very often used in communication, and finally, they can keep up with others. This solution is simple, effective, and, most importantly, fun. Of course, the global miscommunication problem addressed may be too complicated to be solved only with a little platform, but if it manages to teach at least a few people, the results may be far higher than expected. That is why I, majoring in English and Communications and having three years of experience as a programmer, tend to code this platform using the latest technologies and the most effective online teaching techniques.

### **Thesis**

*In numerous IT companies, there is a miscommunication problem among employees, more specifically between IT and non-IT people. A primary cause of this issue is the lack of familiarity with essential IT terminology among non-technical staff. To address this issue, an application can be developed to teach IT terms from basic to advanced by using gamification strategies.*

### **The Problem of Miscommunication**

First, it is highly important to mention that miscommunication between IT and non-IT employees is a two-sided issue. The CIO Executive Council's 2015 *Power of Effective IT Communication* survey shows that while 80% of IT leaders acknowledge the importance of trust and credibility in communication, only 4% believe they are highly effective communicators. According to this survey, 50% of IT leaders attribute poor communication to a lack of talent, and 48% feel they don't dedicate enough time to improving it (CIO Executive Council, 2015). Many IT people lack communication skills, indeed. So, we can conclude that the problem of miscommunication involves both parties. Therefore, to solve this issue, both parties must acknowledge the seriousness of this problem and dedicate time to improving their communication skills.

Before diving deep into the solution, it is better to understand the scale of the problem. Miscommunication among employees may seem like a common issue in every company. However, when the two parties are unable to communicate due to the lack of necessary vocabulary, the entire work process gets distorted and leads to project delays, dissatisfied clients, and, in the end, the company's failure. IT professionals focus on technical aspects, while business teams emphasize profitability and market strategies. According to the SKM group article by Izabela Węgrecka, a project manager with 6 years of experience, IT people use "technical jargon" when communicating and make it difficult for business representatives to

grasp the project details. Moreover, the issue applies in the opposite direction as well. Business teams may often give unclear and self-contradictory requirements to the IT teams as they do not understand how certain things work in IT (Węgrecka, n.d.). So, what we are left with is two different parties not only failing to work together but also being burdens to each other. I strongly agree with the idea of being burdensome to one another, as I have seen this in my workplace.

About a year ago, when I was working as a software engineer at a startup, a new project manager was assigned to work with me. Her job was to manage the development of the user's login and registration for our mobile application, for which she had to divide the necessary tasks, define deadlines, and assign them to me. Of course, we had a meeting, and I told her what I had to code from my side and all the rest of the technical stuff. The meeting went fine, but the next day, I saw the tasks assigned to me were not only wrong and too general but also had unrealistically short deadlines. From this, I realized that she understood nothing from what I said during the meeting, and now tracking my development process felt like hell for both of us. The underlying problem of all this was simply the language, her lack of understanding of some key terms and ideas. Maybe the problem was in me, and I had to choose a bit simpler words for her (even though there are no simpler words for those terms), but I believe that an IT project manager must know at least the basic terms used in our sphere of work.

### **The Solution**

In order to address this problem of miscommunication, I will provide a solution. As the problem lies in the lack of understanding of terms among people, the best solution is to teach them. Everyone, even the best engineers, was taught the terms and ideas throughout their careers, but still, they had to learn these terms for the first time as well. So, education is the key to solving this issue. Nowadays, when people want to learn something new, they Google it, use AI, or find a suitable platform or application aimed at teaching what they are interested in their interest. One famous application is Duolingo, which aims to teach foreign languages in a fun and interactive way. As there is an app for learning languages, why should there also be an app for learning IT terms? That is what **ITalk** is: an education platform aimed at teaching tech terms from beginner to advanced in a fun and interactive way. Now, I will introduce the application and provide detailed descriptions of its features and what **ITalk** is capable of.

First, ITalk is available both as a website and as a mobile application. To make it convenient for the users, they can either access the website or download the application to start learning. After creating an account, you are welcomed with a friendly and minimalist home dashboard with your progress, achievements, and other information related to you. To start learning a term, you just have to press the large “Study” button, and you will be redirected to the

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Study page. As of now, the application includes 1500 terms, which are divided into three separate difficulties: easy, medium, and hard, each with 500 terms. To make the process feel easy and fun, the app teaches only five terms at once by giving a short explanation and a longer explanation. After reading all five terms, the next step is to take the tests to practice the recently learned terms. As of the latest version, there are four different tests/games available: Quiz, Missing Word, Word Shuffle, and Feed the Monster.

### **Game 1: Quiz**

The first test is a simple quiz. The user is asked a simple question about a term, and four possible options are shown, from which the user is asked to select only one. If the user selects the correct answer, the system congratulates the user for their correct answer, and after the user hits the “Next” button, the next term is shown. This process continues until all the recently learned five terms have been asked, and if the user selects all of them correctly, they pass the test, and the system grants the player two types of prizes: experience points and golden coins. After collecting the rewards, the player can move to the next game. If the player fails one of the terms, they will have to start only that particular game from scratch. This game flow is implemented in all four games, and at first, it may sound challenging to start the game from scratch when an error is made, but this is a tested approach that ensures highly effective learning and memorization.

### **Game 2: Missing Word**

The second test is about filling in the missing word. The term is shown, followed by a short explanation of the term, except one word is missing in the explanation, and it is the player's job to guess what word that is and fill it in. Inside the explanation of the term, where the missing word lies, there is an input area accessible for the player to type whatever they like. To maintain a convenient user experience for the player, the system will not check for uppercase or lowercase characters, but the word filled must still be grammatically correct to pass the test. When the player finishes typing the word, a "Check my Word" button will appear, which, when clicked, checks the particular explanation and, if correct, proceeds to the next one until all five terms are complete.

### **Game 3: Word Shuffle**

The third game is about decrypting a word. The user is shown the word, followed by an explanation, except that the letters of the word are in the wrong order and make no sense. The player's job is to guess the correct order of the letters and provide the correct decrypted word. The system will again provide an input field for the player to type in, but this time, the input differs a bit and resembles an OTP (One Time Password) input format, where for each letter or number, there is a specific separate block. This type of input imitates a password decrypting experience to make the player feel as if they are actually cracking or decrypting some message. To maintain a convenient user experience for the player, the system will still not check for uppercase or lowercase characters but will check the grammar and, most importantly, the "empty space" characters. As there can be answers that require more than one word, the player has to divide the word by a space to indicate to the system that there is more than one word. When the

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player finishes typing the word, a “Check my Word” button will appear, which, when clicked, again checks the particular explanation and, if the decryption is correct, proceeds to the next encrypted term until all five terms are complete.

### **Game 4: Feed the Monster**

The last game is the most difficult yet the most fun. There is a large, angry monster on the screen, and he is very hungry. The player has to feed him, but the only thing he wants to eat is the right term is seeks at that moment. The monster mumbles about what term he wants to eat as he is a monster; he does it very poorly, and it is the user's job to try to understand what the monster needs. A list of terms is shown to the user, and they will have to grab the right term and put it on the monster's plate. When the right term is put in, it will turn into food for the monster. However, he is very hungry and is not satisfied with a single term, and he needs at least five terms to be put on his plate so he can eat. To make it even more challenging, the monster limits users, so they need to act quickly. After all the correct terms are put on the plate, the player must hit the “Feed the Monster” button, and the game is complete.

After completing all four games successfully, the user will earn many experience points, advance in the overall progress, and earn coins, which they can spend in the store to buy virtual assets like avatars, cool frames for their avatars, and background images for their profile. As the user passes all the tests, the system will recognize that the player has already learned the five

terms and will redirect them again to the “**Study**” page with the new five terms to learn. After completing the terms, they will go to play the games, this time with the recently learned terms, and this cycle continues over and over. The players will play, learn more terms, earn better positions, and purchase cool assets, and they can show it all on the “**Leaderboard**” page, where all the users are placed in order based on their prizes and acquired points.

Overall, this is how ITalk operates. It is simple and straightforward, but most importantly, effective. The four main games: “Quiz,” “Missing Word,” “Word Shuffle,” and “Feed the Monster,” may feel repetitive, but as the terms progress and get more complicated, the players will most probably stay engaged with them. Moreover, it is important to mention that when the app goes live, the user’s engagement will be carefully reviewed and analyzed based on which updates will be made to the app, such as new games, new assets to purchase, new tech terms to stay up to date, and overall game flow improvements.

### **Education Strategies Used for ITalk**

The entire application, including its learning methods, games, and visual structure, is crafted based on information collected from various academic journals and resources. The strategies and all choices made in the application are not coincidences or a personally biased choice of the author, but instead supported by external valid sources that explain the reason behind each strategy and design used.

The key niche of ITalk is its focus on gamification. The article “Strategies and best practices for effective eLearning: lessons from theory and experience” discusses the ways to implement eLearning effectively, which include weekly exercises, gamification, special reward systems as motivators, and others. The article discusses how easily users can get engaged with e-learning when they have the chance to earn medals and points from it. Every earned experience point (XP) or medal gives a player a slight dopamine boost and, as a result, gradually creates a bigger temptation to play more and earn more. However, it is hard to maintain the player’s interest for a long period of time, as they may get bored with earning medals as well. The solution the article provides is introducing competition among players, which was effectively implemented in ITalk by introducing the Leaderboard page, where the users can see their progress and achievements compared to all other players around the world. These strategies were quite effective in the post-COVID-19 era since, due to this factor alone, online learning has leaped forward (Khazanchi et al., 2022). E-learning methods need to match learning tasks and learner styles, so considering personalized and accessible course design is important. So, based on the article, ITalks should enhance learning through consistent interaction, feedback, and other interactive tools like augmented reality.

To feel a sense of achievement from points and medals, the users must learn and work hard to achieve them. Solely for this, the four games were developed that use action-based learning techniques. The article “Strategies for an Action-Based E-learning Experience” by Deborah Waddill talks about action-based e-learning strategies from which I got inspired to create the games. According to the article, over the past fifteen years, e-learning design has been extensively researched, with best practices identified (Waddill, 2008, p.3). Few, however, have

identified a constructivist approach method specific for adults and how such methods would be applied. This article identifies three action-based, constructivist e-learning strategies incorporating innovative, proven delivery methods suitable for online and blended education environments. The strategies are problem-based learning, project-based learning, and action learning. The paper discusses how such an approach has something in common using examples of their distinctive elements and how such would work practically. To achieve problem-based learning, every game in the app introduces a problem related to the terms, like filling in the missing word or decrypting the encrypted word. As an action learning experience that the article talks about, I give the user the opportunity to type, alter, delete, drag, and drop the terms and overall engage with the game as much as they can to make them learn as much as they can in the process of these diverse interactions. For project-based learning, **ITalk** does not have that functionality at this moment, but later updates and newer games may introduce that technique as well.

To promote gamification, reward systems, competition, and action learning with games are essential, but they may lose all their worth due to the poor design of the app and the poor user flow. A clear and simple user interface, followed by a smooth and easy-to-follow app flow, is as essential as all the techniques mentioned above. That is why the entire app design and visual elements are backed by credible studies of colors and interface design. The design of ITalk is backed by the research by Andrew J. Elliot on color psychology. According to him, color psychology has been researched ever since Goethe's "Theory of Colors," which associated color with feelings (Elliot, 2015). Earlier researchers, such as Goldstein, indicated that a given color,

for example, red and yellow, brought emotional and behavioral changes. Research has concluded that warm colors, like red, are arousing, whereas cool colors, like blue, gray, or green, are calming. New theories discussed in the article, such as the work of Hill and Barton on red signaling dominance and Elliot and Maier's color-in-context theory, develop the contextual and experience-based nature of color responses. It also discusses other recent studies that explore the effects of color on cognition and alertness, especially with the color green. Color psychology is a young field of study, and there is much yet to be known about exactly how various properties of color and contextual factors impact behavior, but using the right color for my platform can be crucial for the user experience. Based on this data, the dominating colors of ITalk were chosen to be gray and green.

The sources I used mainly focus on effective teaching techniques and the overall approach to creating a successful e-learning experience. They cover key aspects such as learner engagement with reward mechanisms, competition as motivation, active learning via games, clear design, and use of colors. All of these methods are academically approved, thoroughly tested, and proven to be effective in real educational settings. They provided a strong foundation and played a vital role in shaping the design, structure, and educational strategies behind ITalk.

## **Conclusion**

As of 2025, the IT industry has been growing exponentially, and more people are entering this sector of work. Due to the rapid development of many tools and technologies, it has actually become hard to keep track of everything new and understand terminology to keep cross-

cultural communication stable and effective. I admit, this is an issue I myself face as well. As the world becomes more complicated day by day and new problems arise, like the problem of miscommunication, I did not just want to highlight the problem, justify its seriousness, and move on. The world is already filled with numerous problems without solutions, and writing an entire capstone just to add another problem on top was not my desire. Instead of addressing the issue and only talking about what should be done, I decided to do it myself and build a solution. Yes, there is a serious problem in the workplace, and what I can do as an engineer is try to build the solution- my ITalk application - an education platform aimed to teach tech terms from beginner to advanced in a fun and interactive way. In this paper, I discussed the problem of miscommunication, using both my personal experience and reliable sources to show how common and important the issue is. I then introduced ITalk as a solution and provided a detailed explanation of the app, its features, strategies, and how it works, supported by proven methods from academic journals and research articles.

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