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Report: IT Support Final Project Phase1

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1.Introduction:

Purpose of the Research: In today's world, IT support plays a big role in making sure computers, networks, and systems work properly in offices, schools, companies, and many other places. This research was done to study what IT support professionals do every day—especially those working at the Help Desk. These are the people who solve problems when users face issues with computers, emails, internet, or any technical faults.

The goal was to look at how they manage those problems using helpdesk tools, mainly ticketing systems.
A ticketing system is a special platform where IT support logs all problems, assigns tasks, tracks their progress, and records solutions. In this project, I used two main sources of information:

1. A training video showing how a Help Desk officer works.
2. A real IT support professional who answered my survey based on real-life experience.

By combining both sources, I was able to learn what is taught in theory and what really happens in the job.

Research Objectives:

Here are the specific things this research tried to achieve:

Find out the main features of a ticketing system, such as how tickets are created, tracked, updated, and closed.

Understand the daily responsibilities of IT support staff, including how they prioritize tasks, solve problems, and deal with users.

Learn how incident management works—how issues are categorized, handled, escalated, and finally resolved.

Compare the video's ideal workflow with what the professional said happens in reality.

Discover the advantages and disadvantages of both sources (video and interview).

Suggest ways to improve IT support operations and tools, based on the findings.

Structure of the Report:

- Research Methodology
- Key Features of a Ticketing System
- IT Support Daily Operations
- Incident Management and
- Escalation Communication
- Practices in IT Support
- Comparison of Video Insights vs. Real-World Practices
- Recommendations for IT Support Improvement Conclusion
- Etc…

2. Research Methodology:

Video Analysis:

To begin the project, I first watched the training video titled: "Help Desk Tier 1: Top Trouble Tickets Training Video – Real Life Lesson to Work Help Desk"

This video was useful for learning what is expected from someone working at the Help Desk. It showed how they:

- Receive tickets from users
- Respond to those tickets
- Troubleshoot issues
- Escalate problems if needed
- Communicate with users

The video also included a real-life screen recording showing ticket management systems, including how to update ticket status, write notes, and close a ticket. This helped me understand what tools are used and what actions IT support needs to take on a daily basis.

Watching the video first gave me the basic idea of what to expect from IT support staff, which made it easier to write good questions for my interview.

Interview Approach:

Since I couldn't meet in person, I used a Google Form to interview one IT support professional. His name is Gaspard Habimana, and he works as a Fiber Customer Support and Management Engineer at KT Rwanda Networks.

The form had questions that asked about:

- His daily tasks
- How he uses the ticketing system
- How he communicates with users
- How he handles and escalates problems
- His opinions about how to improve IT support

I sent him the link, and he kindly responded with detailed answers. He also sent a confirmation email from his official email address to my lecturer, as required.

This method was helpful because it allowed him to take his time and give proper answers.

Data Comparison:

After gathering the information from the video and the interview, I compared both to see what was similar and what was different. I looked at key areas like:

- Ticketing system features
- Daily tasks of IT support workers
- How incidents are managed
- Communication and escalation methods

The comparison helped me learn that while training videos are helpful, real-world work sometimes needs flexibility and quick decision-making.

3.Key Features of a Ticketing System:

Essential Features:

A ticketing system is a tool used by IT support teams to manage and track user problems from the time they are reported until they are fully resolved. It helps IT support stay organized, work faster, and ensure every issue is handled properly. Whether someone reports that the internet is slow, software isn't working, or they need access to a system, the support team will open a "ticket" to begin fixing the issue. In both the video and the interview, several important features were discussed. These features are the foundation of an effective help desk or IT support system.

Essential Features of a Ticketing System

Here are the core features that every good ticketing system should have, along with explanations:

Ticket Categorization and Prioritization This feature allows the IT team to organize incoming tickets into groups such as:

- Network issues
- Hardware problems
- Software bugs
- User access issues

Once categorized, tickets can be prioritized based on urgency:

High Priority (e.g., system outage)
Medium Priority (e.g., performance issues)
Low Priority (e.g., routine updates)

This helps the team know what to solve first and which team member should handle it.

Gaspard mentioned this as one of the most important features in his system. He said their categorization and prioritization process is very effective in helping them manage workload and fix problems in the right order.

SLA Monitoring (Service-Level Agreement)

SLA monitoring keeps track of how long a ticket has been open and whether it is being resolved within the agreed time frame. For example:

A critical ticket might have a 2-hour SLA.
A low-priority ticket might have a 2-day SLA.

If the SLA is close to expiring, the system can alert the team to act quickly.

Gaspard said SLA monitoring is essential for his team because it ensures they meet deadlines and provide good service.

Reports and Dashboards:

Dashboards give a quick view of what's happening in the IT support system. They show:

- How many tickets are open
- Which ones are urgent
- How long it takes to solve issues
- Which departments report the most problems

Reports help managers and teams understand performance, find patterns, and plan improvements.

Gaspard explained that reporting and dashboard features help his team track progress and analyze what needs to be improved, although he also mentioned that better reporting would make the system even more useful.

Notifications and Reminders:

A good ticketing system should automatically send notifications to:

- IT staff when a new ticket is assigned to them
- Users when there is progress or resolution on their issue
- Managers when tickets are escalated or delayed

These alerts make sure no one forgets to follow up and everyone stays informed.

Gaspard confirmed that their system sends follow-up notifications which help both the users and the IT staff keep track of open tickets and ensure timely solutions.

Status Updates

Tickets go through different stages, such as:

- New
- In Progress
- Pending user response
- Resolved
- Closed

Each update shows that work is being done and helps avoid confusion. The support agent can also write internal notes to explain what has been done so far.

In the video, this feature was shown clearly. Support agents updated ticket statuses regularly to help team members stay informed and avoid duplication of work.

Communication Logs

The system stores all conversations related to each ticket. This includes:

- Emails
- Notes written by IT staff
- Messages between the user and technician

This log is useful if the issue returns later or needs to be escalated. Everyone can read what has already been tried, which saves time.

In the video, support agents used logs to track what had been done and shared those notes with other team members.

User Feedback and Ticket Closure

Many ticketing systems allow users to give feedback when their issue is resolved. They can say if they were satisfied or not, and rate the service. Then the ticket is marked as “closed,” and the system stores it for future reference.

While Gaspard didn't mention this specifically, it is a standard feature in most professional systems and was shown in the video.

Insights from the Video:

- The training video explained how a help desk agent:
- Creates tickets quickly and records user details
- Categorizes and updates ticket status as work continues
- Communicates with users through email and phone
- Resolves the issue and closes the ticket
- Uses reports to measure how well the team is performing

The video also showed how escalation works when a problem can't be solved by one person. The ticket is passed to someone with more experience. It emphasized the importance of keeping users informed and logging all work clearly.

Insights from Interviews:

From the survey, Gaspard shared that his most used and most important ticketing system features are:

- Ticket categorization and prioritization
- SLA monitoring
- Reports and dashboards
- Notifications for follow-ups

He said the system they use at KT Rwanda Networks is very effective in organizing tickets and helping the team work efficiently. He also recommended improving the reporting and documentation features to make it even better. Gaspard also supports the idea of using automation and AI in the future to make IT support faster and more accurate.
IT Support Daily Operations:

The day-to-day work of an IT support team is critical for keeping all technology in a company running smoothly. Whether it's fixing a technical issue, helping users with login problems, or monitoring systems to avoid major failures, IT support professionals play a vital role in business operations.

In this section, I will describe what a typical day looks like for an IT support worker based on the training video and the responses I received from my interview with Gaspard, a Fiber Customer Support and Management Engineer at KT Rwanda Networks.

Typical Day in IT Support:

A regular day in IT support usually starts with checking any tickets or system alerts that came in during off-hours. After that, the support team:

- Assigns new tickets to the right team members
- Begins working on open or ongoing issues
- Updates users on ticket status
- Troubleshoots problems using technical tools
- Documents solutions
- Escalates unresolved issues to higher-level technicians or specialized teams

Throughout the day, they might also monitor systems for unusual activity, perform routine checks, respond to emails, and keep track of system performance.

Insights from the Video:

The training video gave a very practical and structured view of how a Tier 1 Help Desk agent operates. Here are some key points shown in the video:

Start of the Day: Support agents first check the ticketing system for new issues submitted by users. These could range from forgotten passwords to network problems.

Ticket Assignment: Tickets are either automatically or manually assigned to agents based on availability and expertise.

Prioritizing Issues: Agents review the priority level of each ticket—some issues are urgent (e.g., network outage) while others can wait (e.g., minor software update).

Solving Problems: Agents try to solve issues as quickly as possible, often by following standard troubleshooting steps.

User Communication: The support staff updates the user through the ticketing system or by calling/emailing them.

End of the Day: Agents document completed tasks and close resolved tickets. They may also leave internal notes to help teammates or for record-keeping.

The video clearly showed how workflow organization, communication, and proper documentation are key for efficient IT support.

From the Interview:

Gaspard described his daily tasks as being both technical and customer-focused. His routine covers many essential areas of IT support, including:

Monitoring Systems

Gaspard regularly checks network activity and traffic to detect problems before users even notice them. This is called proactive monitoring and helps avoid bigger issues later.
For example, if internet traffic seems high in a certain area, he can investigate early to make sure it doesn't lead to outages or slow speeds.

Customer Support

He provides direct assistance to customers who report problems such as slow internet, connectivity issues, or service interruptions. Support can be done through calls, emails, or system alerts. This involves both technical troubleshooting and clear communication to help the customer stay informed.

Logging Incidents

When an issue is reported, Gaspard creates a ticket or incident report in their system. This step is important for tracking the problem from start to finish, and it helps the team stay organized.

All tickets are categorized and prioritized depending on how serious the problem is and how many users are affected.

Troubleshooting

Gaspard uses his technical knowledge to find the root cause of issues and apply solutions. He might check signal strength, bandwidth usage, or system logs. If the problem is more complex, he tries multiple steps like rebooting systems, adjusting signal strength, or contacting another team member.

Escalation

If the issue is beyond his access or skill level (like a server failure), Gaspard documents the situation and escalates the problem to a senior engineer or manager. He explained that clear documentation is very important when passing the issue to someone else.

Writing Reports

At the end of a shift or after solving an issue, he completes reports to summarize what happened, how it was solved, and what can be improved. This helps the team improve over time and avoids repeated mistakes.

3. Incident Management and Escalation:

Incident Management Process:

Incident Management Process (From the Video)

The training video demonstrated the standard steps that IT support agents follow when handling incidents. These steps include:

Identifying the Problem: When a user submits a ticket or makes a complaint, the support agent first reviews the issue. They check details like when the issue started, what symptoms are reported, and whether it has occurred before.

Diagnosing and Troubleshooting: The agent then starts basic troubleshooting, like checking software settings, restarting systems, or guiding the user through steps to solve the issue.

Documentation: Every step taken is logged in the ticketing system. This ensures that other team members can see what has been tried already and what the status of the issue is.

Resolution or Escalation: If the issue is resolved, the ticket is marked as closed, and the user is notified. If the problem is more complex or requires higher-level access, the issue is escalated to a more experienced support tier or a specialized team.

The video emphasized the importance of accurate documentation and clear communication at every step of this process. These practices help avoid delays and ensure smooth teamwork.

Real-World Insights from Gaspard (Interview)

Gaspard's approach to incident management aligns well with the video but also reflects some added responsibilities due to his experience and role in the company. Here's how he explained his incident-handling process:

1. **Identify and Analyze the Problem**

He first reviews the incident, checks the type of issue (for example: slow internet, no signal, hardware error), and analyzes the possible root cause. He might look into bandwidth usage, device performance, or signal strength.

2. **Document Every Detail**

Gaspard always documents the issue and actions taken. This helps keep track of work, and it allows others on the team to follow up if needed. Documentation includes what the customer reported, what tests were done, and what solution was applied.

3. **Escalate When Necessary**

If the issue is beyond his scope—for example, a problem with the core network or system server—he escalates it to his team leader or a higher technical team. Escalation includes sharing full documentation and recommended actions already tried.

Example: Slow Internet Issue One real-world example Gaspard shared was about a customer complaining of slow internet speed. He explained how he followed several steps to resolve the problem:

Step 1: Checked the bandwidth usage to see if the customer's plan was being maxed out.

Step 2: Reviewed devices connected and running apps to see if anything was consuming too much data.

Step 3: Verified the signal strength reaching the customer's device.

Step 4: Improved the signal by adjusting settings or moving the access point.

Step 5: If necessary, increased bandwidth based on customer needs.

Step 6: Restarted the system to refresh performance.

This step-by-step response shows that in real life, incident management often involves multiple small checks and adjustments rather than one quick fix. It also shows how important patience and analysis are in solving user complaints.

4. Communication Practices in IT Support:

From the Video:

Communication is done through email, phone, live chat, and helpdesk portals. The goal is to keep users informed and explain the problem clearly.

From the Interview:

Gaspard said he tells users what happened and asks them to be patient. He makes sure they understand the issue and feel supported. He uses clear explanations and updates them during the process.

5. Comparison of Video Insights vs. Real-World Practices:

Similarities:

- Both use ticketing systems for tracking and solving issues.
- Both involve communication with users.
- Both escalate issues when needed.
- Both show how documentation and reporting help in solving problems faster.

Differences:

- The video shows ideal situations, but real work can be more complex.
- Gaspard uses automation tools and AI suggestions, which the video didn’t cover.
- Real-world problems often need more analysis (like signal checks and bandwidth usage).

Benefits of Both Sources: Explain the value of using both video analysis and interviews as sources of information.

6. Recommendations for IT Support Improvement:

Enhancing Ticketing Systems: Suggest improvements to ticketing systems based on the findings.
Improving Daily Operations: Offer recommendations to optimize daily IT support workflows.
Incident Management and Escalation Strategies: Propose enhancements to incident management and escalation processes.

7. Conclusion:

Summary of Key Findings: This report looked at what IT support workers do every day, especially those who work at the Help Desk and use ticketing systems. After watching the video and doing interviews, here are the main things I found:

- ✓ Ticketing systems help IT staff keep track of problems and solve them step by step.
- ✓ The most used features are creating tickets, updating status, assigning tickets, and writing reports.
- ✓ IT support staff deal with many issues every day, like fixing problems, talking to users, and keeping records.
- ✓ The video showed how things should work in a perfect situation, but the interviews showed how things really happen in real life.
- ✓ Escalation (sending a problem to someone higher) is very important for big or urgent issues.
- ✓ Clear and fast communication helps teams work better and solve problems quicker.

Final Thoughts:

This project helped bridge the gap between theory and practice in IT support. Both the video and the interview offered valuable insights into operations. While videos train students on ideal workflows, interviews show how professionals apply or adapt those workflows in real-life environments.

8. References:

Zendesk. (2023). Help Desk Ticketing System Features. Retrieved from https://www.zendesk.com/help-desk

Freshdesk. (2024). What is IT Support? Retrieved from https://freshdesk.com/it-support

Atlassian. (2023). What is Incident Management? Retrieved from https://www.atlassian.com

ITIL Foundation. (2022). Incident Management Best Practices. [PDF]

11.Appendices:

Interviewee Information:

Name: Gaspard Habimana
Job Title: Fiber Customer support and Management Engineer
Company Name: KT Rwanda Networks
Interview Date: 08/07/2025
Mode of Interview: Google Form (Online Survey)

End.