Calligra (office or graphic suite)
Test Report

University of Oulu
User Experience (UX) and Usability
Evaluation
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Abstract

The Calligra office suite is a free and open-source office suite created for Linux, Windows, and macOS. This test plan covers the testing methodology. This plan's goal is to make sure the Calligra office suite is user-friendly, reliable, and performs at its best while still fulfilling all of its intended functional and non-functional needs. The testing will take place in a UX Lab at Oulu University and will cover some main features and functionalities. The team will keep track of everything using tools for tracking defects and test plans. The severity of the defects and overall quality will serve as the success criteria. The section shows the details of the test report. The report highlights the importance of regular usability testing to ensure that the product meets users' needs and expectations. The testing involved two primary methods, observation and think aloud, and used various procedures such as pre and post-test questionnaires, usability metrics, cognitive walkthrough, interview, and video recording. The report analyzed the collected materials rigorously and used multiple phases and methods to ensure comprehensive understanding. The findings helped to improve the product's usability and overall user experience. The report concludes by emphasizing the lesson learnt.

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1.1 Description of the system to be tested and the case

Our chosen system for usability testing is the Calligra office and graphics suite, a widely used open-source software with a large user and developer community. Our objective is to evaluate the software's usability, particularly in document creation and editing, and identify any issues with the user interface or workflows.

Calligra is a cross-platform application that can be used on various operating systems, including Windows, Linux, and Mac OS. It is designed to cater to a wide range of users, including students, educators, business professionals, and home users, and is user-friendly for all levels of expertise.
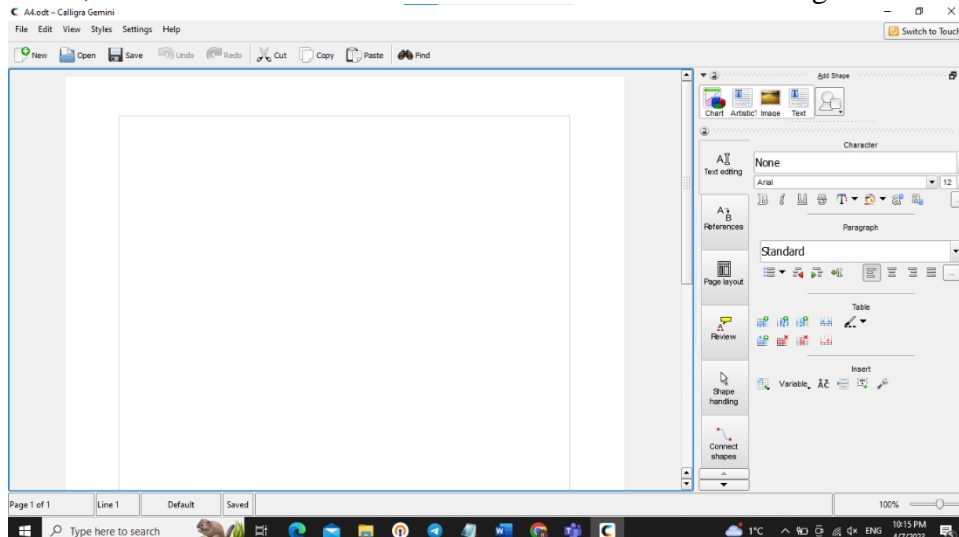
Typical user tasks in Calligra involve creating and editing documents, spreadsheets, presentations, and graphics, with tools for formatting text and images, creating charts and graphs, and adding multimedia elements to presentations. The user interface is intuitive and customizable, with menus and toolbars providing access to all the software's features.
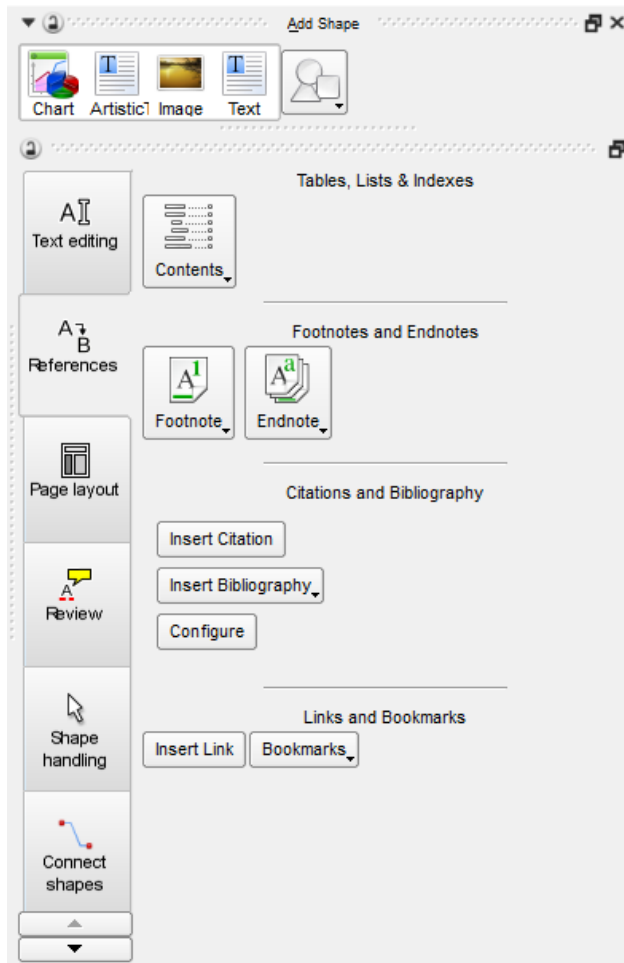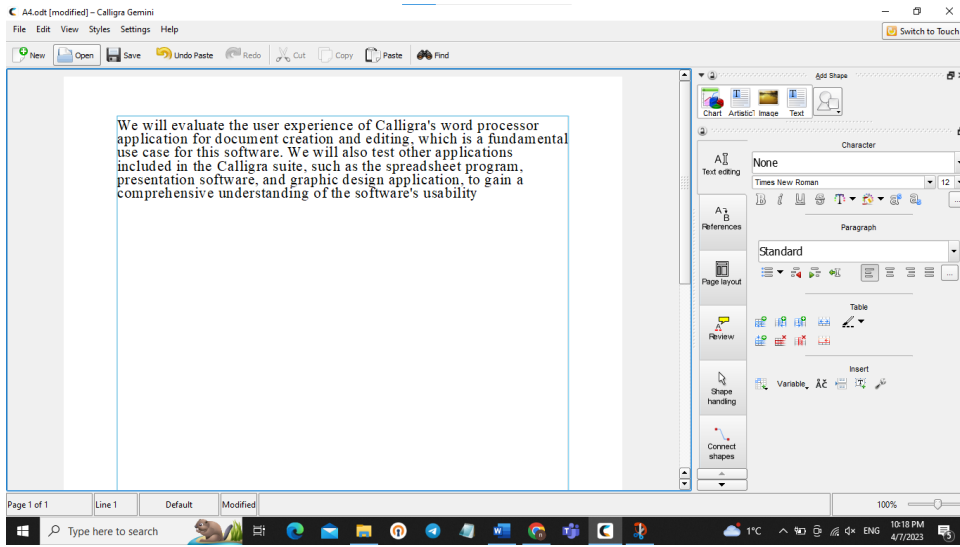
Calligra is typically used in office or academic settings where document creation, management, and editing are required. Our test will focus on users who have a basic understanding of office and graphic software tools and require an open-source solution for their document-related tasks.

We will evaluate the user experience of Calligra's word processor application for document creation and editing, which is a fundamental use case for this software. We will also test other applications included in the Calligra suite, such as the spreadsheet program, presentation software, and graphic design application, to gain a comprehensive understanding of the software's usability.

The current user interface for Calligra includes a ribbon-style menu that provides access to various tabs and submenus for different functions. The interface also includes toolbars that provide quick access to essential features, such as formatting, styling, and visual elements. During our evaluation, we will test the ease of use, efficiency, learnability, error handling, and overall user satisfaction of the interface when performing document creation and editing tasks.

To demonstrate the parts and attributes of Calligra that will be tested, we add screenshots of the user interface, including the ribbon-style menu, toolbars, formatting options, spell-check, and auto-formatting tools.
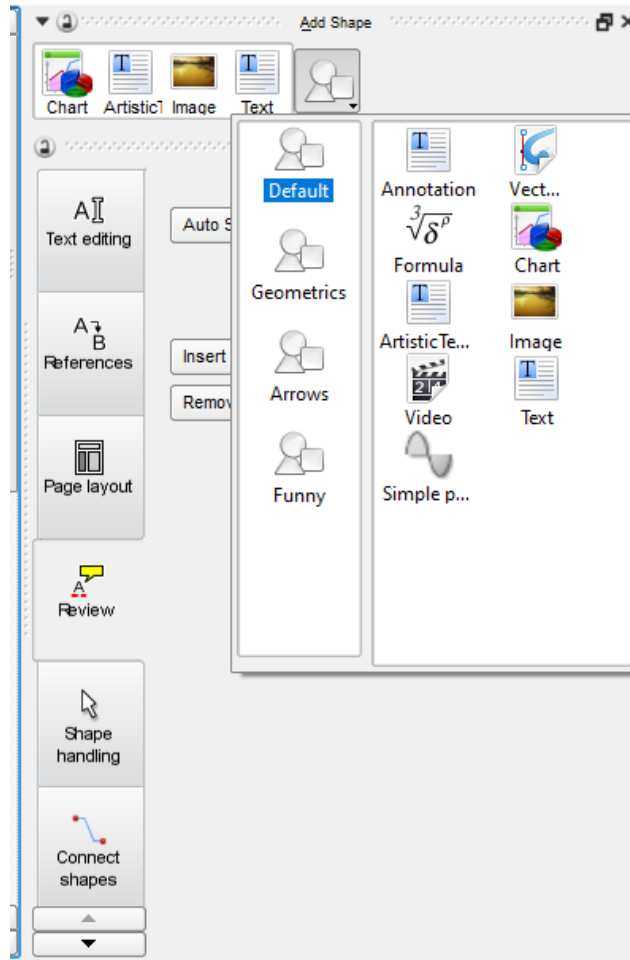
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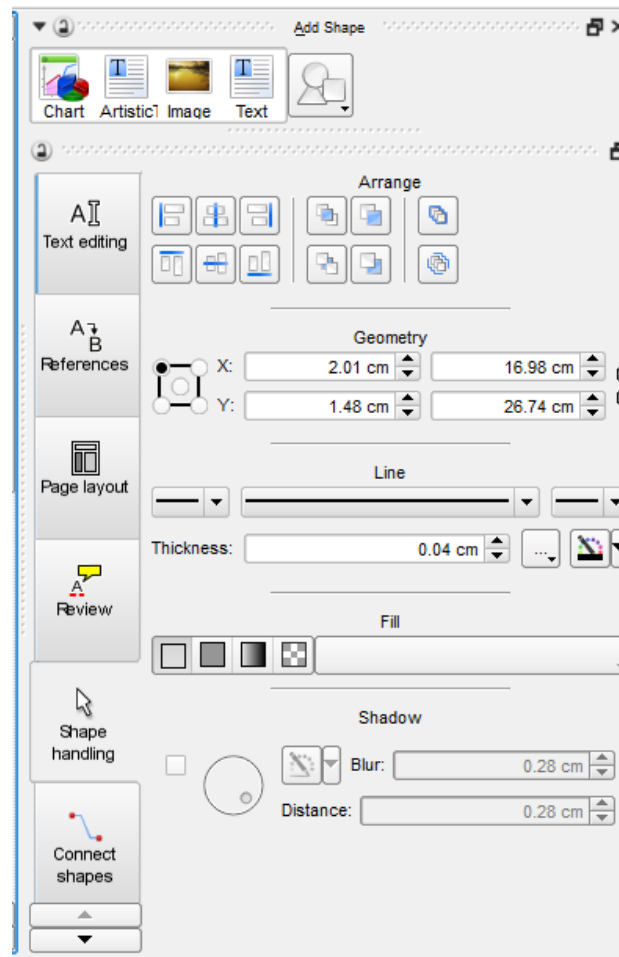
Add Shape

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Video

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Vect...

Chart

Image

Text

1.2 Goals of usability testing

The goals of usability testing for Calligra are to identify any usability issues and evaluate the software's performance in completing its intended tasks. The results of the test will be used to improve the software's usability and to ensure that it meets the needs of its users. we choose a usability criterion such as efficiency, which focuses on the speed and ease of performing tasks, and a type of test such as a comparison test, which involves comparing Calligra to another similar software, such as Microsoft Office or Google Docs.

Also, we want to evaluate the efficiency of Calligra compared to other similar software and to identify any areas where Calligra may be lacking in efficiency. The results of the test will be used to inform the future development of Calligra, with the aim of improving its efficiency and making it more competitive with other software in the market.

In terms of attributes of the technology to be tested, we will focus on the document creation and editing features of Calligra, including the ribbon-style menu, toolbars, formatting options, spell-check, and auto-formatting tools. We will be testing the usability of the whole system, with a particular focus on the document creation and editing process. The goal of the testing is to support tasks of a broad range of users, including students, educators, professionals, and individuals who use office software for personal use.

As mentioned earlier, we will be using a comparison test to evaluate the efficiency of Calligra compared to other similar software. Specifically, we will compare the time and

number of steps it takes to perform common document creation and editing tasks in Calligra and other software.

Finally, we will focus on the efficiency of the software in terms of task completion time and the number of steps required to complete tasks. We will also consider user satisfaction and ease of use as secondary criteria. The usability criteria will be evaluated using concrete metrics such as task completion time and the number of steps required to complete tasks. The comparison test will be conducted to evaluate the efficiency of Calligra compared to other similar software, such as Microsoft Office or Google Docs. The purpose of this test is to identify the strengths and weaknesses of Calligra in comparison to its competitors, and to determine whether Calligra can effectively compete in the market.

To conduct the comparison test, we will perform common document creation and editing tasks in Calligra and the other software and compare the time and number of steps required to complete each task. We will focus on tasks such as creating a new document, formatting text, adding images, and saving and exporting documents.

In addition to comparing the efficiency of Calligra to other software, we will also consider the similarities and differences between the interfaces of Calligra and its competitors. This analysis will provide insight into how users might approach using Calligra, and what challenges or advantages they may experience.

here's a brief comparison of the interfaces of Calligra, Microsoft Office, and Google Docs based of our observation:

Calligra: The interface of Calligra features a ribbon-style menu and toolbars that provide quick access to essential features. It has a relatively simple and streamlined design compared to Microsoft Office and Google Docs.

Microsoft Office: The interface of Microsoft Office features a ribbon-style menu and numerous tabs for various functions, such as Home, Insert, Page Layout, etc. It has a more complex design than Calligra, which may make it overwhelming for some users.

Google Docs: The interface of Google Docs is more minimalist than both Calligra and Microsoft Office. It features a menu bar with options for basic functions, such as File, Edit, View, etc. It also includes a toolbar with shortcuts for essential features. The design of Google Docs is straightforward and easy to navigate.

Each of these interfaces has its strengths and weaknesses, and the best choice depends on the user's needs and preferences. For instance, those who require advanced features, and a high degree of customization may prefer Microsoft Office, while those who prioritize simplicity and collaboration may prefer Google Docs. The comparison of these interfaces can provide insights into users' behavior and experiences when using Calligra, as well as help identify areas for improvement.

1.3 Test methods

For the usability testing of our technology, we have selected the following methods:

Heuristic evaluation: This method involves a group of usability experts evaluating the user interface against a set of predefined usability principles or heuristics. This method is

useful for identifying potential usability issues and providing recommendations for improvement.

Cognitive walkthrough: This method involves a group of participants walking through the user interface while thinking aloud about their thought process and decision-making. This method is useful for identifying issues related to learnability, user error prevention, and task completion.

Pre- and post-test questionnaires: Before and after the usability testing, we will ask participants to complete a questionnaire to gather information on their demographics, experience with similar technology, and expectations. The post-test questionnaire will also include questions related to their satisfaction with the user interface and suggestions for improvement.

Usability metrics: We will use metrics such as task completion time, error rate, and user satisfaction ratings to analyze the usability of the technology.

Interview: We will conduct post-test interviews with participants to gather more in-depth feedback on their experience with the technology, including likes, dislikes, and suggestions for improvement.

We have selected these methods because they are effective in identifying usability issues, gathering user feedback, and providing recommendations for improvement. These methods will be used at different phases of the usability testing to ensure comprehensive evaluation and analysis of the technology.

1.4 Choosing and recruiting test persons

The test participants will be representative of the intended users of Calligra. This includes students, educators, business professionals, and home users who use the software to create and edit documents, spreadsheets, presentations, and graphics. So we plan to include people from various fields and experiences, but we want to categorize them so that we can focus and clearly define the user category that we target.

Participants will be selected based on their ICT experience, including novice, intermediate, and expert users. Novice ICT users are for example educators who are not good with technology but want to learn it so they are able to connect with younger generations better. Intermediate ICT users are for example students who have certain knowledge on similar technologies but want to improve and widen their knowledge by mastering Calligra. Expert ICT users are ones who already know about Calligra and use it very often, but we need their input in the test scenarios in order to get the best possible results to improve Calligra as a whole. These 3 categories will serve as a test person representatives.

At least 3-4 participants will be needed in each user category to ensure a diverse range of perspectives and experiences.

Recruitment of test participants will be done through various channels, such as social media, online forums, and email lists. Interested participants will be asked to confirm their agreement to participate in the study either in writing or orally. Participants may be offered a small reward for their participation in the study.

The recruitment process will be transparent, and participants will be informed of the purpose of the study, what their participation will involve, and how their data will be used and protected. Confidentiality and data protection will be ensured throughout the study.

1.5 Definition of test scenarios and test tasks

Based on the usability goals defined in section 1.2, we design a test scenario that simulates typical user tasks and use cases for Calligra. For this usability test, we will ask users to perform variety of tasks using the Calligra word processor. Each task will be timed, and we will record any errors the user makes while completing the task. In addition, we will ask the user to rate their satisfaction with the software on a scale from 1 to 10 after completing each task. These metrics will be used to evaluate the usability of Calligra office suite and identify any areas where improvements can be made to enhance the user experience. Task completion time, error rate, and user satisfaction rating will be recorded for each task and used to generate a usability report for Calligra office suite.

- Task Completion Time: The amount of time it takes the user to complete the task. We will record the start and end times for each task and calculate the total time taken.
- Error Rate: The number of errors the user makes while completing the task. We will record each error and categorize them as minor or major errors.
- User Satisfaction Rating: User's overall satisfaction with the software on a scale from 1 to 10. We will ask the user to rate their satisfaction with the software after completing the task.

The tests will consist of the following tasks from easy to difficult level and not mandatory to complete all:

1. Open new document on drive D:
2. Save a copy to your D: drive
3. Create a header with your name
4. Select all text by holding down the **ctrl** key and tapping the "**a**" key
5. Left align the text with the alignment buttons on the formatting toolbar.
6. Set the line spacing to 1.5"
7. Copy the prepared text on Appendix 1 and paste it on the document.
8. Triple click on the last paragraph that begins with "Bringing a new puppy home…" to select it
9. Cut it by using the scissors icon on the home ribbon
10. Place your cursor at the beginning of the first line (The thing is…)
11. Paste by using the paste icon on the home ribbon.
12. Select all of the font in the article and change it to Comic Sans, 12 pt.
13. Select the title of the article and change the style to Capitalize Each Word.
14. Change the style of the document to Traditional
15. Spell and Grammar check the document. (NOTE: all breeds are spelled correctly)
16. Select the title of the document.
17. On the Home ribbon, click Change Case and select Title Case
18. Go to the end of your document by holding the **ctrl** key and tapping the **end** key on your keyboard.
19. Press Enter.

20. Type **Pros and Cons of Getting a Puppy** centered and bold
21. Press Enter and turn off the bold setting
22. Insert a Table with 2 columns and 2 rows
23. Create a table with a list of pros and cons discussed in the article. *Pros are positive or good points, and Cons are negative or bad points.* **List at least 3 pros and 3 cons**.

Pros and Cons of Getting a Puppy

Pros	Cons
At least 3 pros	At least 3 cons

24. Bold the column headings (Pros and Cons)
25. Autofit the table to the contents
26. Select the entire table and center it under the title.
27. Save as GettingaNewPuppy-<YOURNAME>.doc on D: drive and make another copy of the document in pdf.

The result should have similar or same with the document shown below.

Getting A New Puppy

Bringing a new puppy home to become a part of the family can bring such laughter, joy and love to a home. It can bring companionship and protection as well as a proven means of stress reduction.

The thing is, ALL puppies are cute, even the ugly ones. "He is so ugly he's cute" is not a rare statement when describing a puppy. Unfortunately, all puppies grow up to be dogs and each will have his or her own personality traits. What began, as a part of a beautiful friendship will often become a resented chore.

Puppies require a great deal of attention and training. Housebreaking in itself is a time consuming thing. It requires someone to be on guard, watching the puppy whenever it is out and about in the house. Hair is often also an issue to consider.

Fuzzy puppies like Chows, Collies, Keeshonds, and so many others are often the easiest to fall in love with. These same puppies will become woolly mammoths in just a few months with a constant supply of shedding hair. With other breeds such as Poodles, Yorkies, Maltese, and Pekingese, the daily brushing and coming can become frustrating when the dog has tangled hair just hours after your careful grooming. These dogs also require frequent baths and trips to the groomer.

Owners will also want to think about the lifespan average of certain breeds. A Great Dane is expected to live somewhere between nine and ten years. A Chihuahua on the other hand may be around for sixteen or more. During all these years, what will you do with the pet when you go on vacation? Will you board it, have a neighbor feed it or take it with you? A small Poodle, Chihuahua or Yorkie may be carried into a hotel room via a large purse, a St. Bernard is going to be a different matter.

As with boarding, veterinary care can become expensive as well. On top of the veterinary care and grooming, there are other expenses as well. Depending on the quality you choose to give your puppy, feed can become expensive. There are the possibilities of deposits if you rent, destruction due to the chewing of a teething puppy and the increase in homeowner's insurance cost that many companies require if you own certain breeds.

These are just a few of the things that should be considered BEFORE taking or purchasing a new puppy. Each one of them can cause resentment and a breakdown in the bond the owner's should have with his or her puppy. By sitting down and thinking things out, making a checklist of the pros and cons of each breed and getting expert advice, getting a puppy can be a wonderfully rewarding experience. Without taking the time to do these things, the same puppy could almost become a nightmare.

Pros and Cons of Getting a Puppy

Pros	Cons
1. Positive point about puppies	1. Negative point about puppies
2. Things I like about puppies	2. Things I don't like about puppies
3. At least 3 pros about puppies	3. At least 3 cons about puppies

The test tasks are designed to cover a range of essential features of Calligra, including document creation, formatting, and creating tables. They also test the usability criteria defined in section 1.2, such as learnability, efficiency, and effectiveness. The estimated time for completing all tasks is 30 minutes. After 30 minutes, we will gently ask the participants to stop the doing the tasks under status , complete or incomplete.

1.6 Test sessions, pre- and post interviews

The test leader will oversee the entire testing process and ensure that all team members are working together efficiently. They will also be responsible for coordinating with stakeholders and ensuring that the testing process is aligned with the project goals.

The test coordinators will be responsible for managing the logistics of the testing process. They will schedule the pre-interviews and post-interviews with participants, ensure that the test environment is set up properly, and coordinate with other team members to ensure that the testing process runs smoothly. Additionally, they will work closely with the participants during the test session to ensure that they understand the assigned tasks and can navigate the Calligra office suite with ease. They will also be responsible for providing assistance when necessary and ensuring that participants are comfortable throughout the testing process.

Another role is the evaluator, they will be responsible for recording the actions of the participants during the test session and taking notes on their feedback. They will also be responsible for observing interactions between participants and the Calligra office suite and identifying any usability issues that arise. Then, they will analyze the data collected during the testing process and identify any patterns or trends that emerge. They will also be responsible for providing recommendations on how to improve the Calligra office suite based on the data collected during the testing process.

In the actual test sessions, an online meeting location can be arranged for the testing process, where recruited real users to perform tasks using the software. The testing process can involve several steps, including pre-test, test session, and post-interviews.

Before starting the test session, a pre-interview can be conducted to provide briefs instructions on overview Calligra office suite and there key components along with the comparison set of Microsoft Office and the purpose of doing the test with general and suitable terminology for anyone to understand. The interview can also gather background information from the users and provide a list of metrics and data to be collected during the test session. This information can help to select appropriate tasks for the test session and ensure that the testing process is consistent and objective. The pre-test interview questions can be found in **Appendix 2**.

During the test session, each participant will complete the test individually, and we will observe and record their actions and feedback during the test. The coordinator can record the actions of the users while they perform the assigned tasks using the Calligra office suite. The coordinator can also evaluate the results of the test session and collect feedback from the users. Interactions between the users and the software can be observed, and facilitations can be provided when necessary to ensure that the testing process runs smoothly. The team members can collaborate to collect and analyze the data gathered from the test session. During the test session, participants are asked to verbalize their thoughts and actions as they complete a task or navigate through the interface. This provides valuable insights into how users approach and use the product, what difficulties they encounter, and how they make decisions. Thinking aloud helps researchers to identify usability issues and make improvements to the product. Participants are encouraged to speak their thoughts out loud, no matter how trivial or seemingly irrelevant they may seem, as they provide valuable information about the user experience. The coordinator can ask follow-up questions to clarify the participant's thoughts or actions, but otherwise, they should remain neutral and allow the participant to freely express their thoughts.

The coordinator will conduct the test sessions via Zoom meeting and will utilize the recording features to capture the actions and feedback of the participants. As the participants complete the assigned tasks, the coordinator will observe their interactions with the software, taking notes on any issues, difficulties, or successes that they encounter. These key notes can help to identify usability issues and guide improvements to the software product. The coordinator will also be responsible for collecting feedback from the participants during the test session, ensuring that the testing process runs smoothly, and providing any necessary facilitations. By actively observing and recording the test sessions, the coordinator can contribute to the accuracy and validity of the data collected, and ultimately help to ensure that the Calligra office suite meets the needs of its users. Following key notes should be considered recorded:

- The time taken by the user to complete each task
- The user's comments and feedback on the software's functionality, interface, and ease of use
- The user's interaction with specific features of the software, such as formatting tools or collaboration options
- Any issues or errors encountered by the user while using the software
- The user's overall satisfaction with the software and their likelihood of using it in the future

After the test session, post-interviews can be conducted to gather feedback from the users on their experience using the Calligra office suite.We will ask them to provide their thoughts on the software's ease of use, navigation, and overall functionality. We will also ask participants if they encountered any issues or difficulties during the test. The data collected from the pre-test and post-interviews can be processed and analyzed to identify usability issues and make improvements to the software product. Pre-processing and post-processing data can help to ensure the accuracy and validity of the data collected during the testing process. The post-interview questions can be found in **Appendix 2**.

1.7 Expert evaluation

Expert evaluation is a method used to evaluate the usability of a software system by expert evaluators who have a deep understanding of the user interface design principles and heuristics. In the case of Calligra office suite, an expert evaluation was conducted to assess its usability.

The expert evaluation was conducted by some previous users of Calligra who were selected based on their expertise in usability evaluation and familiarity with Calligra Office Suite. The evaluators worked independently and evaluated the website and also the office suites based on a set of predefined heuristics and guidelines for usability evaluation, so the method was heuristic.

The evaluation was conducted remotely with a computer that the Calligra office suite installed, using a screen sharing tool that allowed the evaluators to navigate through the website and perform tasks while recording their observations. The evaluators were asked to document any usability issues they encountered, as well as any positive aspects of the website's design and functionality.

During the evaluation, several usability issues were identified in Calligra office suite. These included problems with the consistency of the user interface, issues with the layout and design of some dialog boxes, and difficulties with accessing some features. The

evaluators also noted that some of the features were not intuitive and required a steep learning curve.

The current level of usability of Calligra office suite was deemed to be moderate. While the software provides many features, the user interface design is not consistent, and some features are difficult to use and find for the new users. To improve usability, the evaluators recommended redesigning the user interface to be more consistent and intuitive, and to simplify some of the more complex features. The evaluators recommended several improvements, including:

- Redesigning the website's navigation to make it more intuitive and user-friendly. Now it is outdated.
- Reorganizing the website's content to make it easier to find and access, it seems hard to find the exact product for new users without any previous information.
- Improving the design and visual elements of application to make it more modern and visually appealing. As an example, buttons in Stage and Sheets are like very old versions of Windows.
- Adding more attractive templates to the application
- Implementing the web version of Calligra, It is just a suggestion for further development
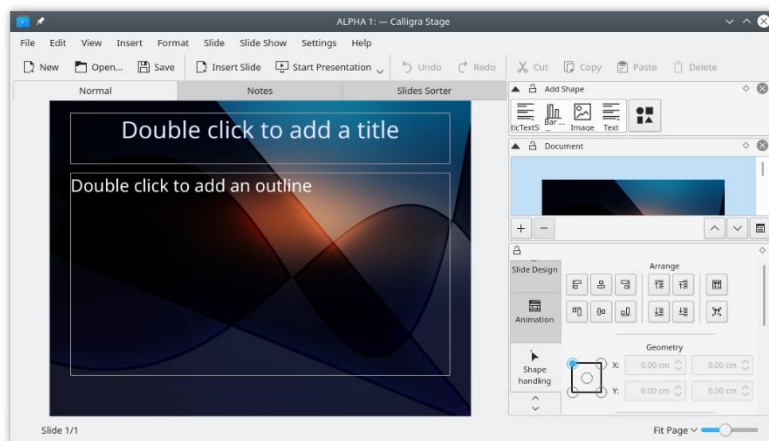
The expert evaluation of Calligra office suite identified several usability issues that need to be addressed to improve the overall user experience. There are several huge rivals for this product like Microsoft office and Google docs which are more common and popular between people, they prefer to use something with an easy and understandable interface. The findings from the evaluation will be used to guide further usability testing and to inform design changes to enhance the usability of the software.

1.8 Pilot test

Test Setting: The pilot test for the Calligra product was conducted in a normal room environment, using a student who had the product and used it before. The purpose of the pilot test was to evaluate the usability and effectiveness of the Calligra product in a simulated real-world setting. The test scenarios were designed to mimic typical usage scenarios, including creating and editing documents, spreadsheets, and presentations.

Test Users: The pilot test users was a student that had experience with Calligra and some other office tools like Google docs and Microsoft office. These users had extensive knowledge of the product and were expected to be highly proficient in using it. The correspondence in relation to test people was high, as the test users were directly involved in the development and improvement of the product.

Placement of Test and Recording Devices: The test was conducted in a quite room, However we will do another test later in a lab. The sessions were recorded using screen capture software, as well as audio and video recording equipment. The function of the recording devices was to capture the user's interactions with the product, as well as any verbal feedback provided during the test.

Test Scenarios and Tasks: The test scenarios and tasks were designed to evaluate the usability and effectiveness of the Calligra product in a simulated real-world setting. The tasks included creating and editing documents, spreadsheets, and presentations, as well as using various features and functions of the product. The pilot test users were able to follow the tasks without difficulty, and provided feedback on areas where improvements could be made.

Pre- and Post-Interviews, Inquiries, Background Information Forms: The pre- and post-interviews, inquiries, and background information forms were appropriate, and provided valuable insight into the user's experience with the product. The pilot test users were able to provide feedback on areas where the product could be improved, as well as suggestions for new features or functionality. Based on the feedback received, changes were made to the product and to the test plan. Questions are listed in **Appendix 2**

Changes Made to Test Plan: Based on the feedback received during the pilot test, changes were made to the test plan for the actual testing phase. These changes included modifications to the test scenarios and tasks, as well as improvements to the pre- and post-interviews, inquiries, and background information forms. The test plan was updated to reflect these changes and will be included in the final test report.

At the end, the pilot test for the Calligra product was successful in identifying areas where improvements could be made. The test scenarios and tasks were appropriate, and the pilot test users were able to follow them without difficulty. The pre- and post-interviews, inquiries, and background information forms provided valuable feedback that was used to make improvements to the product and to the test plan for the actual testing phase.

1.9 Timetable

Week 1:

March 27: Meeting with the customer to discuss project goals and requirements (Mikko Rajanen, Project Manager)

March 28-31: Planning discussions with technology and testing teams (Mikko Rajanen, Project Manager; Technology Lead; Test Lead)

April 1-3: Begin recruiting test persons, Preparing Test plan (Arya Yaghoubi, Test Lead)

April 3-5: Conduct one pilot test (Arya Yaghoubi, Test Lead; Pilot Test Participant, Ali Jalilvand)

Week 2:

April 6-8: Continue recruiting test persons, Completing Test plan (Arya Yaghoubi, Test Lead)

April 9-10: Expert evaluation of technology (Branko Glibota)

April 11-15: Develop test scenarios and tasks, Conduct usability test at lab (Arya Yaghoubi, Test Lead; Pilot Test Participant)

Week 3:

April 16-18: Analyzing usability test at lab (Arya Yaghoubi, Test Lead; Fatemeh Mirzaei & Quan Nguyen, Test Analysists)

April 19-23: Improve and make changes to test scenarios, tasks, and recording devices based on pilot test feedback (Arya Yaghoubi, Test Lead; Technology Lead)

Week 4:

April 24: Prepare and submit the final version of Test Report

April 26: Present the findings of case and from the beginning

Week 5:

May 3-5: Review and finalize report (Mikko Rajanen, Project Manager ;testing team)

Note: On April 12, there will be a usability test with real users at the lab. This test is not included in the timetable as it falls outside the specified time frame of March 27 to May 5.

2. Execution of usability testing

Usability testing measures how simple or complex a product—such as software—is for users to interact with. In order to test a product, testers often gather a group of representative users and ask them to use it to complete a set of activities while being observed and documented by the testers. As the users complete the activities, the testers may ask them to think aloud, record their interactions with the product, and make notes on their behavior and remarks, among other techniques, to collect data. Following testing, the data is evaluated to identify usability problems and potential areas for development.

Usability testing is an essential part of the product development process, where the product is tested to ensure that it meets the users' needs and expectations. The usability testing process involves testing the product's functionality, ease of use, and user experience. Before conducting the actual usability test, it is crucial to conduct a pilot test to identify any issues or challenges that may arise during the actual test. In the case of Calligra Office Suite, a pilot test was conducted with five members spending time testing the software before the actual test.

After the pilot test, some changes were made, such as adding more post-questionnaires, reducing the scope of the office app to Word processor, refining the usability tasks, and using recording equipment in the UX lab to record the actual test. The actual test was conducted on 12.04.2023 in the UX lab room at Oulu University, where three test users spent a total of 2h30 minutes testing Calligra Office Suite. All test users signed the consent form, pre-questionnaire and post-questionnaire. Some interesting findings were discovered after processing the test results from the recording, using qualitative research methods. The findings helped to improve the product's usability and overall user experience. Overall, usability testing is a crucial step in the product development process, and it should be conducted regularly to ensure that the product meets the users' needs and expectations.

2.1 Test sessions

The usability test session for Calligra office suite involved five participants, all of whom had prior experience using office software. The participants were selected based on their age range. The usability test sessions employed two primary test methods, observation and think aloud. The observation method involved observing the behavior and actions of the test participants and taking notes on their performance. The observers recorded the test participant's reactions, the duration of the tasks, the number of unnormal things, and the flow of the tasks. Multiple observers can focus on different aspects of the test, which enables us to analyze the data from different perspectives. This method helps to identify the differences between what users actually do versus what they say they would like to do. The think aloud method involves the test participant verbalizing their thoughts, feelings, and actions during the task. This method provides insights into the learnability, memorability, cause of usability issues, user experience, and the overall satisfaction of the system from user side. However, the thinking aloud method can make tasks slower as normal problem-solving is silent, which can affect the efficiency of the test participant. Also, it can be uncomfortable and unnatural for the test participant, which depends on their personality and experience.

The test participants were five university students who were representative of the intended users of the Calligra Word Processor. Only one participant did not know about Calligra, three had already used Calligra at an extended point, and one had the experience of using Calligra on a daily basis. The recruitment process involved inviting acquaintances from the ITEE faculty to join the test. Confidentiality and data protection were ensured throughout the study by having the participants sign the data privacy notice and consent form before starting the test.

The actual usability tests were conducted in a UX Lab room at the ITEE Faculty in Oulu university and Tellus in university campus. The participants, who were university students, were invited to the room and informed about the purpose of the study and the data privacy measures in place. Each participant signed a data privacy notice and consent form before starting the test. The UX Lab room was equipped with a computer that had the Calligra application installed. The area was isolated to ensure that the participants could focus on the test. The computer was installed with a recording application that recorded the screen and actions taken by the participant during the test. The test facilitator approached each participant individually and explained the purpose of the study, the data privacy measures, and asked for their consent through the consent form. Once the participant had signed the form, they completed a pre-questionnaire. The participants then read the guidelines and tasks that they were required to do and were encouraged to ask extra questions if they did not understand the instructions. They were asked to take notes during the test and to think aloud when proceeding with the tasks, However, they were quiet and preferred to work in silence. The usability test consisted of several tasks, which were given to the participants one at a time. During the test, the computer recorded the entire process, while an observer on the other side of the room recorded the front facial expressions and behavior of the participants. The observers took notes on the participants' reactions, the length of time it took to complete each task, the number of errors, and the flow of the tasks. Once the participant had completed the usability test, the test facilitator guided them through the post-questionnaire.

After completing the tasks, each participant was asked to do the survey to gather their feedback on the usability of the software. The survey was conducted using open-ended questions and focused on the participants' experience with the software, the ease of use, the clarity of the user interface, and their overall satisfaction with the product. This consisted of two parts: multiple-choice questions, an open-ended question, and Likert scale questions. The participants provided some comments and feedback to the test facilitator about their overall feelings and experience using Calligra. The test was then repeated for the next participant, until all five participants had completed the usability test. The data collected from the tests was analyzed to identify the strengths and weaknesses of the current version of Calligra Word Processor. The results and findings of the tests are presented in Section 3 of the test report.

The usability test sessions for Calligra Word Processor provided valuable insights into the user experience, satisfaction, and efficiency of the system. The observations and feedback provided by the test participants enabled the identification of the strengths and weaknesses of the system, which can aid in future improvement in features of the system to the developer team. The test methods applied during the sessions and the background of the test participants were critical factors in achieving the usability findings and results. Also, testers have a suitable comparison of this product with some other similar products.

Numerous problems with the usability of the Calligra office suite were discovered during the usability test sessions. The user interface had various differences, and it was difficult to locate some functions. There were also some activities that had unclear instructions.

The participants also shared some fascinating information about their experiences, such as their preferred methods of text formatting and their thoughts on the software's color scheme.

2.2 Test recordings

Test recordings typically include audio, video, and other data that is relevant to the test objectives. The technical quality of these recordings is essential to ensure that the meaningful contents of the recordings are seeable, hearable, and usable for analysis or test objectives. The visual quality of the video recordings was too high quality. The camera used during the test sessions was set up in a way that captured the entire screen of the computer used by the participants, making it easy to follow the participant's actions and movements during the test. Additionally, the lighting and air conditioning system in the room were set up appropriately, which helped to ensure that the video quality was optimal. The audio recordings were also of high quality, making it easy to hear the participants' thinking-aloud comments and feedback during the test sessions. The microphone used during the test sessions was sensitive enough to pick up all sounds in the room, including those made by the participants. Customers may comment on the voice or sound quality of audio recordings or other forms used in pre- or post-inquiries.

I would recommend giving the participants clearer instructions on speaking clearly and loudly enough to be heard if I were to change the video or audio recordings for the upcoming usability tests. This is especially important when they are discussing their thoughts and impressions aloud during the test session. To make sure that all audio is recorded at the best quality, it may also be useful to perform some additional testing on the audio equipment before the session.

3. Analysis and interpretation of findings

The usability testing for Calligra software was conducted using a variety of methods to evaluate the user interface and user experience of the software. The testing was conducted on April 12, 2023, at the UX Lab at the University of Oulu, and involved five participants who were asked to complete several tasks using the software at the location. Besides UX Lab, we invite other two participants to conduct testing at Tellus on the same day. A total of 5 participants' data and test results are collected. In addition to the methods described in the Usability Report, we also recorded the video of the users' interactions, emotions, and feelings when seeking or completing the tasks, as well as their thoughts when thinking aloud.

Methods and Procedures Used

The following methods and procedures were used in the analysis and interpretation of the collected test material:

- Prepared the app: The software was downloaded from calligra.org on testing computers in the lab before starting the process of testing.
- Cognitive walkthrough: The participant was asked to walk through the user interface while thinking aloud about their thought process and decision-making. This method helped identify issues related to learnability, user error prevention, and task completion.
- Pre- and post-test questionnaires: A consent form and pre-questionnaire were provided to gather information on demographics, experience with similar technology, and expectations. The post-test questionnaire included questions related to satisfaction with the user interface and suggestions for improvement.
- Usability metrics: Metrics such as task completion time, error rate, and user satisfaction ratings were used to analyze the usability of the technology.
- Interview: A post-test interview was conducted to gather more in-depth feedback on the participant's experience with the technology, including likes, dislikes, and suggestions for improvement.
- Video recording: We recorded the video of the users' interactions, emotions, and feelings when seeking or completing the tasks, as well as their thoughts when thinking aloud.

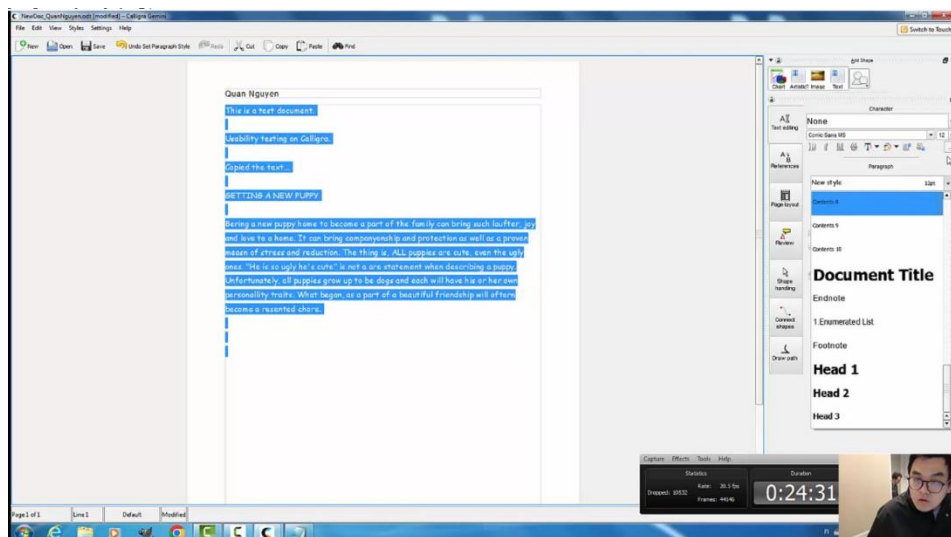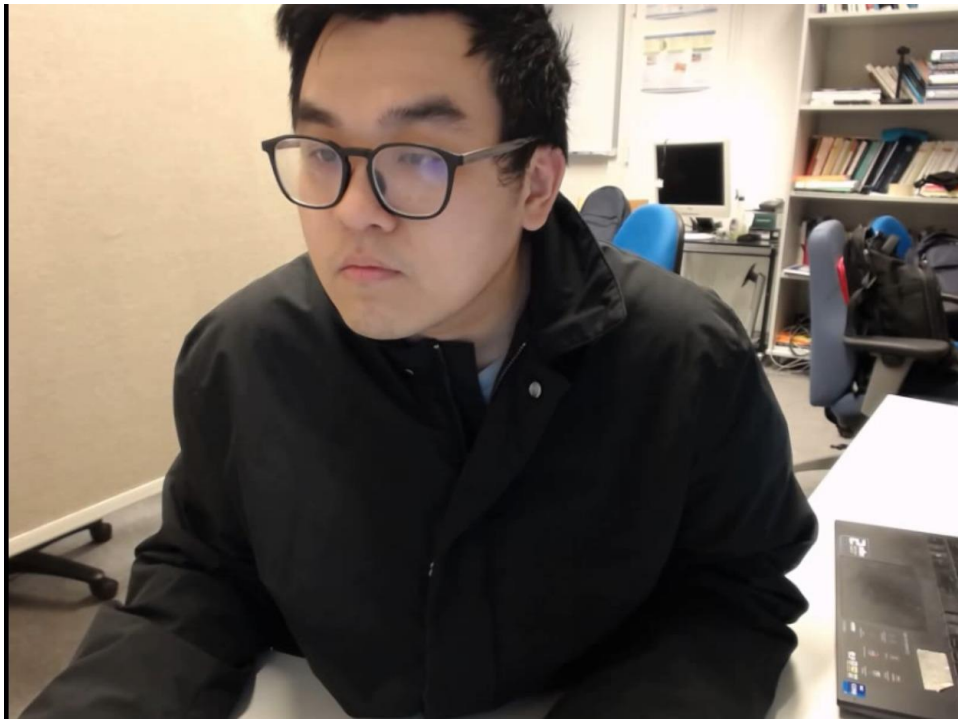Screenshots of the testing process were taken to document the participant's interactions with the software, including the user interface and any error messages encountered. These screenshots from the UX Lab recording devices were used to provide visual evidence and to aid in the analysis of the usability findings.
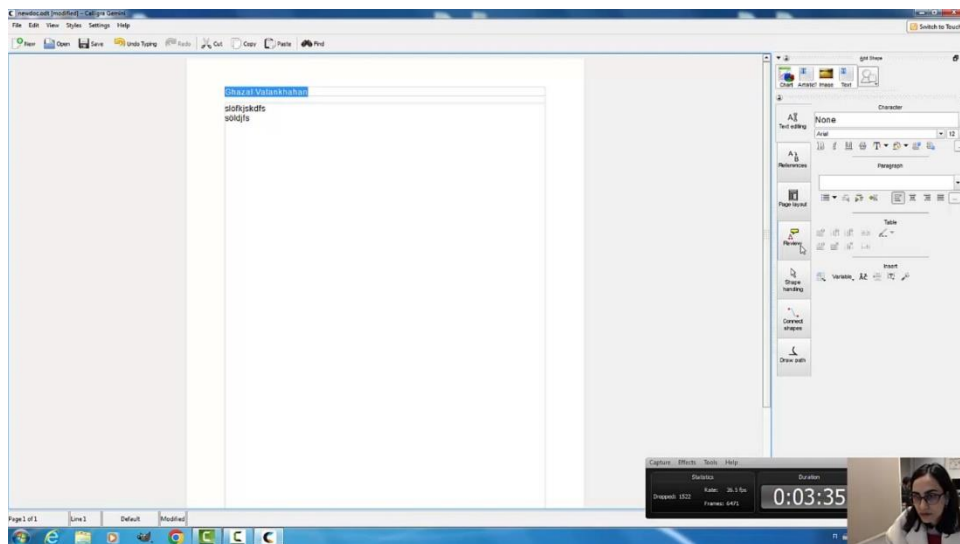
Paritipant1: Ghazal Vatankhahan, data Engineer,Student
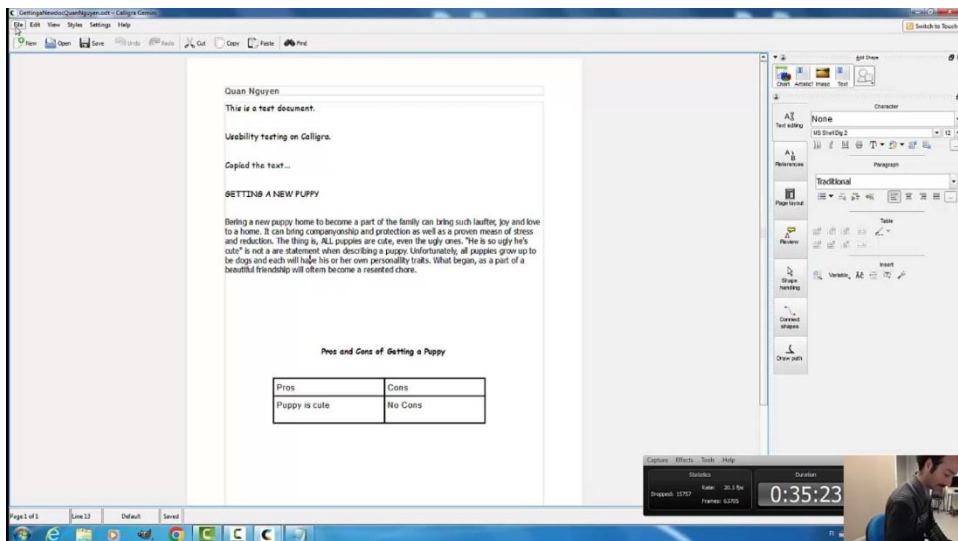
Participant2: Arya Yaghoubi, Product Manager, Student

Paticipant 3: Quan Nguyen, Student

Here are screenshots of the various methods used during the usability testing process, including consent forms, pre-questionnaires, post-questionnaires, event questionnaires, and the list of tasks that participants were asked to follow throughout the test.

Consent form

Title: Participation Consent Form for Calligra Test Plan

You are being requested to take part in a study being done by Fatemeh ,Arya, Branko, Quan studentsat the University of Oulu, faculty member of Information Technology and Electrical Engineering (ITEE).

If you have any Question about the interview and study, please feel free to contact with **Fatemeh.Mirzaei@student.oulu.fi**

Purpose of study:

The purpose of this study is to evaluate the usability of Calligra software to ensure it meets the needs of its users.

PROCEDURES:

If you agree to participate in this study:

• You will be asked to perform several tasks using the Calligra software.

• Your screen and audio will be recorded during the testing session.

• You will be asked to provide feedback on your experience using the software.

• The testing session will take approximately 30-45 minutes.

RISKS: There are no foreseeable risks associated with participating in this study.
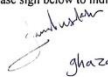
BENEFITS: Your participation in this study will help us identify areas for improvement in Calligra software. The results of this study will be used to improve the usability of the software, which will benefit both current and future users.

CONFIDENTIALITY: All information collected during the testing session will be kept confidential. Any identifying information, such as your name or contact information, will not be shared with anyone outside of the research team.

WITHDRAWAL: Your participation in this study is voluntary, and you have the right to withdraw at any time without penalty.

CONSENT: By participating in this usability testing, you acknowledge that you have read and understood the information provided in this consent form. You also consent to the procedures outlined above.

Please sign below to indicate your agreement to participate in this study.

ghazal Vatankhahan.

Consent form

Pre-Test Questionnaire:

What is your age?   33

What is your gender?   F

What is your education level?   master student in business analytics

What is your occupation?   I'm student now. but I have many years experience in software development

What is your experience with similar technologies?

Have you ever used Calligra before?   no

If yes, how often do you use Calligra?   —

What do you expect from the usability testing of Calligra?   checking userfriendly— un–UI

Pre-test questioner

Post-Test Questionnaire:

What is your overall satisfaction with the user interface of Calligra?

It was difficult and awkward :(
because we first learn word and it is a bit different.

How easy was it to learn how to use Calligra?

not easy but I can find any thing
very

Were there any features of Calligra that you found difficult to use? If so, which ones?

- new document
- spell checking
- line space

Did you encounter any errors while using Calligra? If so, what were they?

yes I think spell checker does'nt work

How would you rate the performance of Calligra in terms of speed and responsiveness?

good ← → good

Did you encounter any bugs or glitches while using Calligra? If so, what were they?

Did you find all the features that you needed in Calligra? If not, what features were missing?

yes

Do you have any suggestions for improving the user interface of Calligra? If so, what are they?

I think it is better to similar with word

Post-Test Questioner

Post-Test Questionnaire:

1. Overall, how satisfied were you with your experience using Calligra Office Suite?
   - Extremely satisfied
   - Very satisfied
   - Moderately satisfied
   - Slightly satisfied
   - Not at all satisfied

2. How easy was it to navigate and use the features of Calligra Office Suite?
   - Extremely easy
   - Very easy
   - Moderately easy
   - Slightly easy
   - Not at all easy

3. Did you encounter any difficulties while using Calligra Office Suite?
   - No, I did not encounter any difficulties
   - Yes, I encountered minor difficulties
   - Yes, I encountered major difficulties

4. How likely are you to recommend Calligra Office Suite to a friend or colleague?
   - Extremely likely
   - Very likely
   - Moderately likely
   - Slightly likely
   - Not at all likely

5. How satisfied were you with the speed and performance of Calligra Office Suite?
   - Extremely satisfied
   - Very satisfied
   - Moderately satisfied
   - Slightly satisfied
   - Not at all satisfied

6. How would you rate the overall design and appearance of Calligra Office Suite?
   - Excellent

Post-Test Scale Questioner

post-event questionnaire with a scale of 1-10:

testing

- How would you rate the overall organization and execution of the event? (1 = very poor, 10 = excellent) 10

- Did the event meet your expectations? (1 = not at all, 10 = exceeded my expectations)

- How satisfied were you with the venue and facilities? (1 = very dissatisfied, 10 = extremely satisfied)

- Were the speakers and presentations engaging and informative? (1 = not engaging or informative, 10 = highly engaging and informative)

- Was the event schedule well-structured and paced? (1 = poorly structured and paced, 10 = very well-structured and paced)

- How satisfied were you with the catering and refreshments? (1 = very dissatisfied, 10 = extremely satisfied)

- Did you find the networking opportunities valuable? (1 = not valuable at all, 10 = very valuable)

- How likely are you to attend a similar event in the future? (1 = very unlikely, 10 = very likely)

- How likely are you to recommend this event to others? (1 = very unlikely, 10 = very likely)

Post-test Event Questioner

the tasks listed out:

- Open a new document on Drive D.
- Save a copy of the document to your D drive.
- Create a header with your name.
- Select all text by holding down the Ctrl key and tapping the "A" key.
- Left align the text using the alignment buttons on the formatting toolbar.
- Set the line spacing to 1.5".
- Copy the prepared text from Appendix 1 and paste it into the document.
- Triple-click on the last paragraph that begins with "Bringing a new puppy home…" to select it.
- Cut the selected paragraph using the scissors icon on the home ribbon.
- Place your cursor at the beginning of the first line ("The thing is…").
- Paste the cut paragraph using the paste icon on the home ribbon.
- Select all of the text in the article and change the font to Comic Sans, 12 pt.
- Select the title of the article and change the style to capitalize each word.
- Change the style of the document to Traditional.
- Spell and grammar check the document (note: all breeds are spelled correctly).
- Select the title of the document.
- On the Home ribbon, click "Change Case" and select "Title Case."
- Go to the end of the document by holding the Ctrl key and tapping the End key on your keyboard.
- Press Enter.
- Type "Pros and Cons of Getting a Puppy" centered and bold.
- Press Enter and turn off the bold setting.
- Insert a table with 2 columns and 2 rows.
- Autofit the table to the contents.
- Select the entire table and center it under the title.
- Save as "GettingaNewdoc|<YOURNAME>.doc" on your D drive and make another copy of the document in PDF.

Tasks

Data Analysis: The collected data from the usability testing for Calligra software was analyzed to interpret the results and provide recommendations for usability improvements. Five participants took part in the testing, and they completed all tasks within 24 to 30 minutes, with the exception of the spellchecker and grammar checker task, which was identified as a bug. Video recordings of the participants' interactions, emotions, and thoughts while completing tasks were also analyzed. The analysis of the data showed that the participants found the user interface of Calligra software very difficult and outdated to use, especially for new users. The participant suggested that the menu bars need to be updated and have round shapes with flat icons, similar to Microsoft Office and Word. As a result, the participant was not satisfied with their experience using Calligra software and was slightly likely to recommend the testing process to a friend or colleague. Based on these findings, the following recommendations for usability improvements were made:

Interpretation of Findings:

Based on the collected data and analysis, the following recommendations are made to improve the usability of Calligra software:

- Redesign the menus: The menus and bars need to be redesigned to improve the user interface and provide a better user experience.
- Improve Navigation: Calligra is difficult to navigate, especially for new users. Adding navigation features such as breadcrumbs and a tree view can make it easier for users to find the document they are looking for.

- Offer Tutorials and Help Documentation: It can be challenging for new users to get started. Providing tutorials and help documentation can help users learn how to use the software and increase their productivity.
- Fix the bug with the spellchecker and grammar checker function.

Conclusion:

In conclusion, the usability testing for Calligra software using a variety of methods provided valuable insights into the usability of the software. The data collected was analyzed to provide recommendations for improvement. The recommended improvements to the user interface, navigation, and documentation can significantly improve the user experience and increase productivity.

3.1 Analysis of the collected materials

The collected materials for the usability testing included videos, audio recordings, and notes taken during the testing session. We recorded the video of the participants' interactions, emotions, and feelings when seeking or completing the tasks and also their thoughts when thinking aloud. We also made audio recordings of the participants' verbalizations during the testing process.

The analysis process involved multiple phases. Firstly, we individually analyzed the content logs and transcriptions of the audio recordings and videos. This involved reviewing the videos, notes, and audio recordings to identify key themes and issues that emerged during the usability testing. We then compared our individual analyses and identified common themes and issues.

Next, we engaged in a group analysis to further refine our analysis and identify additional insights. This involved group discussions where we shared our individual analyses and compared our findings. We also reviewed the videos together, highlighting key moments and interactions that were relevant to our analysis.

The video material analysis involved multiple goals and phases. The goal of the video analysis was to understand how users interacted with the Calligra software, identify usability issues and areas for improvement, and gather insights into the users' experience.

In the first phase of video material analysis, we watched the videos and took detailed notes on the participants' interactions with the software. We also took notes on their facial expressions, body language, and verbalizations during the testing process.

In the second phase of video material analysis, we transcribed the audio recordings to capture the participants' verbalizations and thoughts while they were using the software. This helped us to better understand the participants' thought processes and identify areas where they may have struggled or encountered difficulties.

In the third phase of video material analysis, we engaged in group analysis and discussed our findings. We identified common themes and issues across the participants, and we

also compared our individual analyses to identify areas where we may have missed important insights.

Aside from the video materials, we also used notes taken during the testing session to inform our analysis. These notes captured the participants' interactions with the software and any issues or concerns they raised during the testing process.

The analysis process was rigorous and involved multiple phases and methods to ensure that we captured a comprehensive understanding of the users' experience with the Calligra software. The use of multiple types of data, including video recordings, audio recordings, and notes, allowed us to triangulate our findings and gain a more nuanced understanding of the users' experience.

3.2 Interpretation of usability findings

During the testing, usability findings were recognized through various observations of the participants. These included:

- Difficulty in completing tasks within a reasonable time frame
- Struggle in navigating the user interface
- Unclear instructions and lack of guidance
- Inconsistency in design and functionality
- Technical issues such as bugs, crashes, and slow performance

The usability findings were identified based on the analysis of the collected materials, including video recordings, audio recordings, and notes taken by the observers. The video recordings were particularly useful in capturing the participants' interactions, emotions, and thoughts when seeking or completing the tasks.

The usability problems were recognized and identified based on a comparison of the participants' performance against the expected task outcomes, as well as the participants' feedback and comments during the think-aloud process.

The findings were outlined and grouped based on common themes and categories, such as navigation, design, and technical issues. Each issue was given a severity rating and described in detail to provide a comprehensive understanding of the problem.

To assist in the analysis, outlining, and grouping of the findings, we held group discussions and individual analyses to ensure a thorough and accurate interpretation of the data.

4.   Usability findings and recommendations

The usability testing for the Calligra Word Processor was conducted to evaluate the overall ease of use, performance, and user satisfaction of the software. The testing involved 5 participants who performed a total of 27 different tasks, while their behavior and facial expressions were observed and recorded. The testing also involved taking notes on the frequency of help requests and any difficulties encountered during the testing. After the testing, participants were asked to complete a post-event questionnaire to gauge their overall satisfaction with the software and the testing process. Based on the feedback provided by the participants, recommendations were made to improve the usability and functionality of the software, including simplifying the interface design, improving labeling and placement of important features, optimizing system performance and stability, and providing better help documentation. These recommendations aim to improve the overall user experience and make the software more accessible and user-friendly for all users.

4.1   Findings of usability testing

The purpose of this usability study was to test the usability of Calligra Word Processor software with five participants completing 27 tasks. Three metrics were used to evaluate the usability of the software: Task Completion Time, Error Rate, and User Satisfaction Rating. The Task Completion Time was recorded for each participant as they completed the 27 tasks. The average time to complete a task was 30 minutes, with the fastest time being 55 seconds and the slowest time being 300 seconds. The average time was below the allocation time of 25 minutes, indicating that the software was efficient and user-friendly. The fastest time of 2 seconds was within the expected time for easy tasks. During the completion of the 27 tasks, we recorded the number of errors made by each participant. Errors were categorized as either minor errors, identified as spellcheck and auto-correct feature. The overall error rate was 11%, indicating that the software was relatively error-free. Most errors were minor and did not significantly affect the completion of the task. **Table 1**. Summarize the overall metrics of usability tesing.

Metric	Value
Overall Task Completion Rate	89%
Average Completion Time	~30 minutes
Fastest Task Time	55 seconds
Error Rate	100% for Task 15 and Task 7

Table 1. Overall usability metrics gathered from the usability testing

After the test sessions, we can generalize the user experience rating of Calligra Office Suite using Likert scale and 1-10 scale questions from the post-test questionnaires. The Likert scale questions (1-7) were answered on a scale from 0-4, and the 1-10 scale questions were answered on a scale from 1-10. Overall, the users' experience with Calligra Office Suite is fairly positive, with an average score of 2.6 (out of 4) for the

Likert scale questions and an average score of 8.2 (out of 10) for the 1-10 scale questions.

There were some areas where users experienced difficulties or expressed negative feedback, such as difficulty in finding features, spellcheck and autocorrect issues, some parts of the software being hard to learn, and confusion with the user interface. When looking at the open-ended responses, it appears that some participants struggled with finding certain features or performing basic tasks, such as formatting text and adding tables. Others reported experiencing bugs and crashes while using the software, which led to frustration and loss of work. It is recommended that these issues be addressed to improve the overall user experience.

The Calligra Word Processor demonstrated good usability, with an 89% success rate, low error rate, and high user satisfaction rating. The software was found to be user-friendly and efficient, with most participants able to complete the tasks within the allocated time. The user satisfaction rating was 8.2 out of 10, indicating that the software was well-liked by the participants. Based on these metrics, we can conclude that Calligra Word Processor software is highly usable and meets user expectations. However, there is still room for improvement, particularly in reducing minor errors to improve the overall user experience. To sum up, we grouped our findings into different categories as **Table 2.** Below. In this table, each usability finding is categorized by its problem area, such as Navigation and Interface or Features. The severity of the usability problem is then rated on a scale of 0-4, using the rating scale given by Jacob Nielsen (1994). Each finding is also given an item number to distinguish it from other findings within the same category. The frequency of the problem is rated on a scale of 0-5, indicating how often users encountered the issue in the testing. The scope level indicates whether the issue is system-wide or specific to a particular feature or functionality. Finally, an explanation is provided for each finding to give further context and detail.

Category	Usability Findings
Navigation and Interface	Difficulty navigating system due to cluttered interface design Description: Users found it difficult to navigate the system Severity scale: 3 Scope: system-wide Frequency : 4 Explanation: Users struggled with overall navigation due to cluttered interface design
Navigation and Interface	Trouble locating important features due to poor labeling Description: Users had trouble locating important features Severity scale: 3 Scope: system-wide Frequency: 4 Explaination: Important features were not labeled or placed in a way that made them easily accessible to users

Functionality and Performance	Crashes Description: Some users experienced crashes Severity scale: 3 Frequency: 2 Scope: System-wide Explanation: Users experienced system crashes while using the software
Functionality and Performance	Difficulty with advanced formatting tasks Description: Users found it difficult to perform advanced formatting tasks Severity scale: 2 Scope: Specific Frequency: 4 Explanation: Users struggled with creating tables and inserting images
Functionality and Performance	Spellcheck and auto-correction not working Description: Spellcheck and auto-correction were not functioning Severity scale: 3 Scope: System-wide Frequency: 5 Explanation: The spellcheck and auto-correction features were not working properly
Features	Limited feature set Description: Features were limited in scope Severity scale: 2 Scope level: System-wide Frequency: 4 Explaination; Users felt that the feature set was not comprehensive enough and lacked high customization and layout options

Features	Compatibility issues when exchanging documents with other systems Description: Compatibility issues arose when exchanging documents with other systems Severity scale: 3 Scope level: system-wide Frequency: 5 Explaination: Users experienced issues when attempting to exchange documents with other software or systems, likely due to compatibility issues
Similarity with MS Word	Difficulty finding similarity to MS Word Description: Users found it difficult to find any similarity to MS Word Severity scale: 2 Scope level: Specific Frequency: 3 Explanation: Users did not feel that the software shared enough similarities with MS Word, which may have affected their overall experience
Features	Lack of visibility and compatibility for some features Description: Some features lacked proper visibility and compatibility Severity scale: 2 Scope level: Specific Frequency: 3 Explaination: Some features were not properly labeled or displayed, leading to confusion and uncertainty about their functionality

Table 2. Usability findings

4.2 Usability recommendations

Based on the feedback provided by the participants, it can be inferred that the usability of Calligra Office Suite is satisfactory, with moderate ease of use and minor difficulties encountered during use. However, the design and appearance of the suite were rated poorly, indicating that there may be a need for improvement in this area. The speed and performance of the suite were highly rated, indicating that it is efficient and responsive. In terms of the post-event questionnaire, participants rated the organization and execution of the event highly, with a score of 10 out of 10. The personnel and operations were also deemed engaging and informative, with a score of 10 out of 10. The venue and facilities were highly rated, indicating that they were satisfied with the UX Lab room and testing

process, conducting continuous usability testing cycles would greatly help the Calligra Office suite gets improved.

Participants also provided recommendations for improvement, such as the need for more advanced features to support professional editing, and the provision of better help documentation to aid in navigation and use of the suite. Additionally, faulty features such as spell check, and auto-correction were noted, highlighting areas that may require attention. One major area for improvement is the navigation and interface design. Users reported difficulty navigating the system due to a cluttered interface and had trouble locating important features due to poor labeling and placement. Simplifying the interface design by removing clutter and unnecessary elements and improving labeling and placement of important features can help to make the system more user-friendly. Additionally, users experienced crashes while using the software, indicating a need to optimize system performance and stability. Providing more intuitive and accessible formatting options for advanced tasks, such as tables and images, can also enhance the functionality and performance of the suite. providing thorough and complete documentation for all features, including those that may be less frequently used, can also help users to better navigate and utilize the suite. Enhancing sharing and collaboration features can make it easier for users to work together on documents, and providing better tracking and versioning features for shared documents can help users keep track of changes made by others. Finally, making it easier for users to customize the system settings to better accommodate their accessibility needs can help to ensure that the suite is accessible to all users.

Below list down the key highlights of the recommendations:

- Simplify the interface design by removing clutter and unnecessary elements.
- Improve labeling and placement of important features to make them easier to locate.
- Optimize system performance and stability to prevent crashes and slow-downs.
- Add more intuitive and accessible formatting options for advanced tasks, such as tables and images.
- Improve online help documentation by making it more searchable and user-friendly.
- Provide thorough and complete documentation for all features, including those that may be less frequently used.
- Improve sharing and collaboration features to make it easier for users to work together on documents.
- Provide better tracking and versioning features for shared documents to help users keep track of changes made by others
- Make it easier for users to customize the system settings to better accommodate their accessibility needs.

5. Lessons learnt

The whole usability testing process was really interesting. We all already had experience with testing even before this course, but this usability approach was new for most of us. In the beginning, we thought it was easy, simple and intuitive to do the whole process, but the more we learned from lectures and testing analysis, the more we figured out that it is not so simple as it seems to an untrained eye.

We would like to point out that the successful part was definitely the process of testing, where we really had a group of participants with very small amount of knowledge about using Calligra, and that was something that helped us find some problems with the application. Also, because we wanted to get the most out of our participants, we really focused on analyzing the testing process where we really looked into the video screen recording of the whole process and that gave us great results and information. So, I would say our success is a product of our detail-oriented approach.

The challenging and also difficult part is definitely being organized in such a big pool of data. It is so easy to get lost and focus on unnecessary information. That also affects the time spent working on the testing and analysis, so we really needed to work on our efficiency skills. But we assume that with experience, usability testers know and feel where and what to examine the most, and that's what we hope for in our future projects.

Next time when we involve in usability testing in practice, it depends on the size of the project, but we definitely think that we would benefit from more participants and also with various backgrounds, since in this case most of our participants were students. Also, we would like to point out that it is necessary for all team members to participate in each task of the project, because that way the best conclusions can be drawn, and the project can have the best possible outcome.

By implementing this assignment, we learned how specific the process of usability testing is for each project, and that we need to approach our future projects with caution. A well-prepared testing process is mandatory, and in general good and detailed preparation can go a long way towards helping us as testers to do our job more effectively.

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Appendices

Appendix 1

Pre-text:

getting a new puppy

The thing is, ALL puppies are cute, even the ugly ones. "He is so ugly he's cute" is not a rare statement when describing a puppy. Unfortunitly, all puppies grow up to be dogs and each will have his or her own personallity traits. What began as a part of a beautiful friendship will often become a resented chore.

Puppy's require a great deal of attention and training. Housebreaking in itself is a time-consuming thing. It requires someone to be on gard, watching the puppy whenever it is out and about in the house. Hair is often also an isue to consider.

Fuzzy puppies like Chows, Collies, Keeshonds, and so many others are often the easyest to fall in love with. These same puppys will become woolly mamoths in just a few months with a constant supply of shedding hair. With other breeds such as Poodles, Yorkies, Maltese, and Pekingese, the daily brushing and comeing can become frustrating when the dog has tangled hair just hours after your careful grooming. These dogs also require frequent baths and trips to the groomer.

Owners will also want to think about hte lifespan average of certain breeds. A Great Dane is expeckted to live somewhere between nine and ten years. A Chihuahua on the other hand may be around for sixteen or more. Durring all these years, what will you do with the pet when you go on vacation? Will you board it, have a neighbor feed it or take it with you? A small Poodle, Chihuahua or Yorkie may be caried into a hotel room via a large purse, a St. Bernard is going to be a different matter.

As with boarding, vetrinary care can become expensive as well. On top of the vetrinary care and grooming, there are other expenses as well. Depending on the quality you choose to give your puppie, feed can become expensive. There are the posibilities of deposits if you rent, destrucsion due to the chewing of a teething puppy and the increase in homeowner's insurance cost that many companies require if you own certin breeds.

These are just a few of the things that should be considered BEFORE taking or purchaseing a new puppy. Each one of them can cause resentment and a breakdown in the bond the owner's should have with his or her puppy. By sitting down and thinking things out, making a checklist of the pros and cons of each breed and getting expert addvice, getting a puppy can be a wonderfuly rewarding experience. Without taking the time to do these things, the same puppy could almost become a nightmeer.

Bringing a new puppy home to become a part of the family can bring such laufter, joy and love to a home. It can bring companyonship and protection as well as a proven means of stress reduction.

Appendix 2

Pre-interview questions:

• Can you tell us a little bit about your experience with office suites in general?

• Have you used Calligra office suite before? If so, what tasks have you completed using the software?

• Can you walk us through your typical workflow when using office suite software?

• How important is ease of use when it comes to office suite software?

• What tasks do you expect to perform using the Calligra product?

• Are there any specific features that you are looking for in an office suite?

Post-interview questions:

• How did you find the overall usability of the Calligra office suite?

• Did you encounter any issues or difficulties when using the software?

• Were there any specific features that you found particularly useful or challenging?

• Were there any features or functions that you felt were missing or could be improved upon? If so, which ones and how?

• Do you feel that the Calligra office suite meets your needs?

• Do you have any suggestions for how the software could be improved?

• Would you recommend the Calligra product to others? Why or why not?