\*\*Slide 1: Introduction/Background\*\*

- \*\*Script\*\*: "Welcome everyone. Today, I will present my thesis on Automatic Story Generation using Prompt-Based Learning. The emergence of Pre-trained Language Models, or PLMs, has significantly improved the quality of machine-generated text, making it almost indistinguishable from human-written content. However, controlling the generation process remains a challenge. Stories generated by large language models can often lack depth, originality, and coherence, leading to narratives that feel formulaic or repetitive. To address these challenges, this study investigates employing prompt-based learning for generating stories and using in-context examples to guide the generation process."

\*\*Slide 2: Research Questions\*\*

- \*\*Script\*\*: "Our research focuses on three key questions: First, can the techniques for story generation that require fine-tuning be adapted to use prompt-based learning for Few-Shot story generation? Second, given that previous methods primarily use GPT-2, could employing the latest GPT-3 or other advanced models improve text generation capabilities? Lastly, since prompt-based learning has proven effective in zero-shot and few-shot settings, can this approach be applied to story generation to produce coherent narratives without extensive training? These questions aim to fill the gap in long-form story generation methods, ultimately supporting writers in enhancing their storytelling skills."

\*\*Slide 3: Goals and Objectives\*\*

- \*\*Script\*\*: "The primary goal of this research is to investigate prompt-based learning and assess its potential for creating controlled narratives. Our objectives include performing a comprehensive study of existing research, developing a practical procedure for story creation using prompt-based techniques, and evaluating the produced stories using automated metrics. By achieving these objectives, we hope to contribute to the understanding of how AI can assist writers in overcoming creative blocks and enhancing their storytelling skills."

\*\*Slide 4: Importance of the Research\*\*

- \*\*Script\*\*: "This research is particularly important as it addresses the gap in long-form story generation methods that do not require fine-tuning. While short-form story generation has received considerable attention, long-form narratives remain relatively unexplored. By supporting writers with AI assistance, we aim to generate new ideas and help overcome writer’s block, ultimately facilitating the creation of improved stories through collaboration with artificial intelligence."

\*\*Slide 5: Scope of the Research\*\*

- \*\*Script\*\*: "The scope of this research includes finalizing the thesis within a specified timeframe, utilizing available software and GPU resources, and relying solely on automated metrics for evaluation. This approach allows us to focus on the effectiveness of prompt-based learning for story generation without the complexities of human assessment, ensuring a systematic and data-driven evaluation of our findings."

\*\*Slide 6: Organization of the Study\*\*

- \*\*Script\*\*: "The thesis is organized into six chapters. Chapter 1 introduces the context and significance of the research. Chapter 2 presents a comprehensive literature review, examining existing studies in automatic story generation and prompt-based learning. Chapter 3 outlines the methodology employed in this research. Chapter 4 discusses the implementation details, while Chapter 5 presents the results of our evaluations. Finally, Chapter 6 concludes the study and suggests future directions for research."

\*\*Slide 7: Literature Review Overview\*\*

- \*\*Script\*\*: "In Chapter 2, we conduct a comprehensive literature review of existing research in automatic story generation and prompt-based learning. This chapter examines the evolution and advancements in these fields, highlighting key methodologies and identifying gaps for further investigation. By contextualizing our research within the broader landscape, we set the stage for understanding how these fields have developed and where future research might focus."

\*\*Slide 8: Automatic Story Generation\*\*

- \*\*Script\*\*: "For a computer system to display true creativity, it must produce stories that are distinct from previous examples. This requires consideration of various elements such as the setting, character motivations, and interactions. Gervás explored how these systems aim to replicate human creativity, while Kybartas and Bidarra classified story generation systems into four categories: manual author writing, automated plot creation, automated space generation, and integrated story generation. This classification helps us understand the different approaches to story generation."

\*\*Slide 9: Structural Models\*\*

- \*\*Script\*\*: "There are two main methods for generating stories using computer programs: story graphs and schemas. In the story graph method, a branching graph represents all possible story paths, and a specific path is selected to build the narrative. An example of this technique is SCHEHERAZADE, developed by Li et al. Although structural models are beneficial for producing well-organized stories, they have limitations, such as struggling with narratives involving multiple protagonists and producing stories that lack coherence due to insufficient attention to story semantics."

\*\*Slide 10: Planning-Based Models\*\*

- \*\*Script\*\*: "Critics have pointed out that traditional story grammar theories often fall short in capturing the full depth of narratives. To address these limitations, the story points theory was introduced, which views a story as a sequence of causally connected events aimed at achieving a specific objective. This approach emphasizes the importance of understanding the relationships between events in a narrative, providing a more nuanced framework for story generation."

\*\*Slide 11: Machine Learning Models\*\*

- \*\*Script\*\*: "Advancements in machine learning approaches have significantly impacted the field of automatic story generation. Techniques such as story abstraction, script learning, and story completion have emerged. Story abstraction involves identifying key elements of a story, while script learning focuses on generating sequences of events that commonly occur together. These advancements enhance the ability of models to create coherent and engaging narratives, showcasing the potential of machine learning in this domain."

\*\*Slide 12: Challenges in Automatic Story Generation\*\*

- \*\*Script\*\*: "Despite advancements in automatic story generation, challenges remain. Originality is crucial for creating stories that are distinct and display true creativity. Coherence is essential for producing narratives that are logically consistent and engaging. Additionally, effective evaluation metrics are necessary for assessing the quality of generated stories and comparing different approaches. Addressing these challenges is vital for advancing the field of automatic story generation."

\*\*Slide 13: Problem Statement\*\*

- \*\*Script\*\*: "The primary challenge addressed in this thesis is the difficulty in achieving controlled story generation using PLMs without extensive fine-tuning. Current methods often lead to repetitive or formulaic narratives that lack depth and coherence. This research aims to investigate prompt-based learning as a potential solution to address these challenges, leveraging the advantages of prompt-based learning to generate coherent and engaging narratives without the need for extensive fine-tuning."

\*\*Slide 14: Methodology Overview\*\*

- \*\*Script\*\*: "In Chapter 3, we outline the research methodology employed to investigate prompt-based learning for story generation. This includes the algorithms and techniques used, the data preparation process, and the evaluation methods. Our methodology aims to provide a comprehensive and systematic approach to addressing the research questions and achieving the study's objectives."

\*\*Slide 15: Algorithms and Techniques\*\*

- \*\*Script\*\*: "We discuss various pre-trained language models, including GPT-2, GPT-3, and others, in terms of their applicability in the context of story generation. The characteristics and capabilities of these models are explored, highlighting their potential for generating coherent and engaging narratives using prompt-based learning. Understanding these models is crucial for assessing their effectiveness in our research."

\*\*Slide 16: Data Preparation Process\*\*

- \*\*Script\*\*: "The data preparation process involves using datasets such as ROCStories and WritingPrompts. We detail how prompts are created from outlines, demonstrating how the research leverages prompt-based learning to guide the story generation process. This systematic approach ensures that the generated stories are coherent and aligned with the intended narrative structure."

\*\*Slide 17: Evaluation\*\*

- \*\*Script\*\*: "The evaluation metrics employed to assess the quality of generated stories include both quantitative and qualitative measures. We emphasize the importance of effective evaluation in assessing the performance of prompt-based learning systems for story generation. By using a combination of metrics, we can gain a comprehensive understanding of the strengths and weaknesses of the generated narratives."

\*\*Slide 18: Results & Discussion Overview\*\*

- \*\*Script\*\*: "In Chapter 5, we present the findings from our study, including both quantitative and qualitative analyses of the generated stories. The results are discussed in the context of the research questions and objectives, highlighting the successes and limitations of the prompt-based learning approach for story generation. This analysis provides valuable insights into the effectiveness of our methodology."

\*\*Slide 19: Quantitative Analysis\*\*

- \*\*Script\*\*: "The quantitative analysis section presents the evaluation scores obtained using automated metrics for story generation. We compare the results across different models and prompting techniques, allowing for a data-driven assessment of the effectiveness of prompt-based learning in generating coherent and engaging narratives. These findings help us understand the relative strengths of each approach."

\*\*Slide 20: Qualitative Analysis\*\*

- \*\*Script\*\*: "The qualitative analysis section provides examples of generated stories, highlighting the strengths and weaknesses of the prompt-based learning approach in terms of narrative coherence, character development, and overall engagement. By discussing these examples in detail, we gain insights into the potential and limitations of the studied approach, informing future research directions."

\*\*Slide 21: Insights\*\*

- \*\*Script\*\*: "In the insights section, we discuss the implications of our results for future research and the potential for improving story generation techniques using prompt-based learning. Key takeaways from the study emphasize the importance of prompt engineering, model selection, and evaluation in the context of prompt-based learning for story generation. These insights can guide future efforts in this evolving field."

\*\*Slide 22: Conclusion and Future Works\*\*

- \*\*Script\*\*: "In conclusion, this research contributes to the understanding of prompt-based learning in narrative generation. We summarize the key findings of the study and their significance in the field of automatic story generation. Future directions for research include comparisons with other models, existing methods, and exploration of improved evaluation metrics. Thank you for your attention, and I look forward to your questions."