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Version: 2

Status: completed

Cream

Report

PR5A3 – CWL Manual

for implementation of CREAM Creative Writing Laboratories model

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Summary

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Executive Summary

The "storytelling Laboratory (CWL) Manual" is a comprehensive guide designed to empower educators—school teachers, educational coordinators, and other professionals—with the tools, strategies, and insights necessary to establish and run successful storytelling Laboratories (CWLs) in their schools. Recognizing the vital role of creativity in the 21st-century educational landscape, this manual combines theoretical foundations with practical applications to inspire and nurture a new generation of writers.

Purpose and Overview

The CWL Manual begins with a clear articulation of its purpose: to serve as an essential resource for educators who wish to foster creativity and enhance students' writing skills through structured, student-centred programs. It provides an overview of what CWLs are—innovative spaces dedicated to the exploration of writing in all its forms—and explains the benefits of integrating storytelling into the broader educational curriculum. By using this manual, educators will be able to create environments that not only develop students' writing abilities but also their critical thinking, communication, and problem-solving skills.

Setting Up the storytelling Laboratory

The manual offers detailed guidance on the logistics of setting up a CWL, including choosing the right space, gathering resources, and creating a

conducive environment for creativity. It emphasises the importance of a well-structured CWL. Practical advice is provided on how to make the physical and intellectual environment inviting and supportive, thus encouraging students to take creative risks and explore their writing potential.

Pedagogical and Learning Methodologies

One of the core sections of the manual focuses on pedagogical approaches and learning methodologies that are essential for a successful CWL. The manual advocates for student-centred learning, where educators act as facilitators, guiding students through the creative process rather than dictating it. It explores the integration of 21st-century skills—such as critical thinking, digital literacy, and collaboration—into storytelling, and offers strategies for incorporating problem-based, project-based, and inquiry-based learning into CWL activities. The manual also introduces the innovative integration of STEM/STE(A)M concepts into storytelling, demonstrating how interdisciplinary approaches can enrich students' learning experiences.

Welcoming Ideas and Fostering Creativity

Stimulating creativity is at the heart of the CWL, and the manual provides a wealth of strategies for helping students generate ideas and overcome creative challenges. From brainstorming techniques to problem-solving strategies, educators are equipped with tools to help students navigate the complexities of creative projects. The manual emphasises the importance of creating a classroom culture that values experimentation, encourages risk-taking, and views mistakes as opportunities for growth.

Collaborative Writing and Peer Engagement

Collaboration is a key element of the CWL, and the manual dedicates a section to exploring the benefits of teamwork in writing. It offers practical advice on managing writing teams, facilitating peer review sessions, and steering group projects to successful completion. By fostering a collaborative environment, the CWL not only enhances students' writing skills but also builds a sense of community and collective creativity.

Story Weaving and storytelling Exercises

The manual delves into the techniques and exercises that form the backbone of storytelling instruction. It provides detailed guidance on story weaving—combining plot, character, setting, and theme into cohesive narratives—and offers a variety of storytelling exercises that cater to different skill levels and interests. The manual also addresses common challenges such as writer's block, providing practical strategies to help students overcome these obstacles and continue developing their writing.

Digital and Educational Tools

Recognizing the role of technology in modern education, the manual includes a section on digital tools that can enhance the CWL experience. It explores online writing platforms, digital storytelling tools, and programming resources that allow students to experiment with new forms of creative expression. Additionally, the manual discusses the use of gamification and assessment tools to motivate students and track their progress.

CWL Structure, Organization, and Assessment

A well-structured CWL is crucial for success, and the manual provides detailed guidance on how to organise and manage the program. It includes a visual diagram of the CWL structure and checklists to ensure all necessary resources are in place. The manual also emphasises the importance of process-oriented evaluation.

Bibliography and Further Reading

The manual concludes with a comprehensive bibliography and further reading section, offering educators a wealth of resources to deepen their understanding of storytelling pedagogy. It includes suggested texts for teachers, online resources, and detailed references, ensuring that educators have access to the information they need to continue developing their CWL programs and to support their students' creative journeys.

Key terms

1. storytelling Laboratory (CWL)

An innovative educational space where students explore storytelling through structured, student-centred activities. CWLs focus on developing students' writing skills, creativity, and critical thinking by providing a supportive environment for experimentation and collaboration.

2. Student-Centred Learning

An educational approach where students take an active role in their learning process. In CWLs, teachers act as facilitators, guiding students through storytelling activities that encourage independence, critical thinking, and personal expression

3. Project-Based Learning (PBL)

A teaching methodology where students engage in extended, meaningful projects that integrate various skills and knowledge areas. In the CWL, PBL allows students to work on long-term writing projects that reflect their interests and real-world issues.

4. Problem-Based Learning (PBL)

A learning approach where students solve complex, real-world problems through research, collaboration, and creative thinking. In the CWL, this method encourages students to use writing as a tool for exploring and addressing challenges.

5. STEM/STE(A)M

Acronyms for Science, Technology, Engineering, and Mathematics (STEM) and Science, Technology, Engineering, Arts, and Mathematics (STE(A)M). In the CWL, these concepts are integrated into storytelling to encourage interdisciplinary thinking and innovation.

6. Gamification

The incorporation of game design elements, such as points, badges, and challenges, into educational activities. In the CWL, gamification is used to motivate students and make the writing process more engaging and enjoyable.

7. Inquiry-Based Learning

A learning approach where students explore writing topics through guided research and inquiry. In the CWL, inquiry-based learning encourages curiosity and critical thinking, leading to deeper understanding and more meaningful writing.

8. Flipped Classroom

An instructional strategy where students engage with learning materials at home and use classroom time for collaborative activities. In the CWL, the flipped classroom model allows for more focused writing time and peer interaction.

9. Scaffolding

A teaching technique that provides students with structured support as they develop new skills. In the CWL, scaffolding might involve step-by-step instructions, graphic organisers, or checklists to help students manage complex writing tasks.

10. Critical Thinking

The ability to analyse information, evaluate different perspectives, and make reasoned judgments. In the CWL, critical thinking is developed through activities that challenge students to think deeply about their writing and the issues they explore.

1. Introduction to storytelling Laboratories

1.1 Purpose of the Manual

The storytelling Laboratory (CWL) Manual is your go-to guide for establishing and running a successful CWL in your school. This manual is more than just a collection of instructions; it's a comprehensive resource to inspire creativity and foster a love of storytelling in your students. Whether you are a seasoned educator or new to the concept of storytelling in the classroom, this manual will provide you with practical strategies, well-pedagogical insights, and a structured approach to enjoy exploring STEM subjects through storytelling with your students.

The manual bridges the gap between theory and practice, with a blend of research and hands-on advice. It is structured to guide you step-by-step through the process of setting up your CWL, from the initial planning stages to the execution of your first session and beyond. Each chapter provides clear, actionable tips, ensuring that you feel confident and equipped to lead your students on their creative journeys.

It also emphasises the broader educational goals of storytelling, exploring how storytelling can be integrated into various aspects of the curriculum to enhance

students' overall learning experience. By the end of this manual, you will be prepared to run your own CWL *and also* to advocate for the importance of creativity in education.

1.2 Overview of CWL

Storytelling Laboratories (CWLs) are an innovative educational experience where students can explore the art of storytelling applied to STEM subjects in a structured yet flexible environment. CWLs are student-centred and focus on experimentation, collaboration, and problem solving. These laboratories are designed to be dynamic and responsive to students' needs, providing opportunities for them to engage with storytelling in ways that are both challenging and enjoyable.

The concept of CWLs is rooted in the belief that creativity is a vital skill for the 21st century. In a world where communication and critical thinking are increasingly valued, CWLs offer students a chance to develop these skills in a supportive environment. Properly integrated into the broader curriculum, CWLs can help students make connections between their creative endeavours and their academic studies, leading to a more holistic educational experience.

In a CWL, students are encouraged to be proactive with their storytelling, explore different genres, and collaborate with their peers. The laboratory setting allows for a more fluid approach, where the process is as important as the product. This focus on process helps students build resilience, as they learn to embrace challenges and view mistakes as opportunities for growth. Through CWLs, students not only become better storytellers but also more confident and reflective learners.

1.3 Benefits of storytelling in Education

storytelling is more than just an academic exercise; it is a powerful tool for personal and intellectual growth. Engaging in storytelling means students can develop a range of cognitive and emotional skills that are essential for success in both their academic and personal lives. Writing creatively helps students improve their language skills, including vocabulary, grammar, and syntax, while also enhancing their ability to express complex ideas clearly and effectively.

Beyond the linguistic benefits, storytelling also fosters critical thinking and problem-solving skills. When students create stories, poems, or essays, they must consider various perspectives, structure their thoughts logically, and convey their ideas in a compelling way. This process of constructing narratives and arguments hones their analytical abilities and prepares them for the challenges of real-world situations.

Moreover, storytelling is important for the students' emotional and social development. It provides a safe space for them to explore their thoughts and feelings, build empathy, and develop a sense of identity and self-awareness. In a CWL, students work together, receive feedback, and collaborate with peers, which helps them build confidence and a sense of community. By nurturing these skills, storytelling contributes to the development of well-rounded, thoughtful, and resilient individuals.

CREAM takes it one step forward by deploying it to empower STEM education.

1.4 Target Audience

First and Foremost, this manual is aimed at school teachers and education professionals who are interested in incorporating storytelling into their teaching practice of STEM subjects. This manual is designed to support you. It is also a valuable resource for school administrators and curriculum planners who wish to promote creativity and innovation across their schools.

The CWL Manual is suitable for educators at all levels of experience. If you are new to storytelling, this manual will provide you with the foundational knowledge and practical tools you need to get started. For more experienced educators, it offers fresh ideas, advanced strategies, and insights into the latest pedagogical approaches to storytelling. The model is also adaptable, allowing you to tailor the content to suit the specific needs and interests of your students.

In addition to classroom teachers, this manual will also benefit those involved in after-school programs, enrichment activities, and extracurricular clubs that focus on writing. The strategies and activities outlined in this manual can be easily adapted for different settings, making it a versatile tool for anyone interested in fostering a love of writing and creativity in young people. By using this manual, you will be joining a community of educators committed to making a positive impact on students' lives through the power of storytelling.

Remember, you will be a facilitator, not an instructor. You will provide means and context, but it is your students who will have to endow the activity with meaning through their own effort.

When planning yourCWL, consider a mix of activities that cater to different learning styles and needs. This might include a warm-up exercise to get students into the creative mindset and build the team, such as a quick free-writing activity or a group discussion on a provocative question. Follow this with a main activity that focuses on developing specific writing skills or working on longer projects. This could include guided writing exercises, peer review sessions, or collaborative storytelling.

End your CWL with a show&tell activity that requires students to think about what they have learned and how they applied it to their own storytelling. WEll-structured CWLs ensure that all students have a meaningful role, are engaged, and build their skills over time while maintaining their enthusiasm for the creative process.

For details, see the model Diagram and Checklist in Chapter 7.

2.3 Creating a Conducive Environment for Creativity

Creativity thrives in an environment where students feel safe, supported, and free to be bold with their imagination. As the facilitator of the CWL, it's your role to create a classroom culture that encourages experimentation and values the process of creation as much as the final product. Start by establishing clear expectations around respect and openness. Make it clear that all ideas are welcome and that the CWL is a judgement-free zone where students can explore their creativity while receiving constructive feedback.

To achieve this, you need to demonstrate that you are following the same rules as your students . Encourage students to view mistakes as opportunities for learning and growth, and celebrate their willingness to experiment with new ideas and techniques, even when the results differ from their expectations.

Finally, consider the physical aspects of the environment that can influence creativity. Lighting, seating arrangements, and even the colours on the walls can affect how students feel in the space. Soft lighting, comfortable seating, and calming colours can help create a relaxed atmosphere that is conducive to deep thinking and creative exploration. By paying attention to these details, you can create a CWL environment that inspires students and supports their creative endeavours.

3. Pedagogical and Learning Methodologies

3.1 Introduction to Key Pedagogical Approaches

The pedagogical approaches you choose for your CWL will shape how students engage with storytelling and how they develop as storytellers. In a CWL, the emphasis is on student-centred learning, where the role of the teacher shifts from a traditional instructor to a facilitator of learning. This approach empowers students to take ownership of their progress and to see themselves as active participants in their education. Fostering a student-centred environment means encouraging independence, creativity, and critical thinking.

Project-based learning is another key methodology in the CWL, where students engage in extended storytelling projects that integrate various skills and knowledge areas. This approach allows students to work on meaningful projects that reflect their interests and real-world issues, making them more relevant and engaging. Through project-based learning, students learn to manage their time, meet goals, and collaborate with peers, all of which are essential skills for success in both academic and professional contexts.

Inquiry-based learning is also highly effective in the CWL, as it encourages students to explore topics through research, questioning, and experimentation.

This method aligns with the natural curiosity of students and fosters a deeper understanding of the writing process. It will help you create a dynamic and responsive learning environment suitable for the needs of your students.

3.2 Understanding 21st Century Skills and Competencies

The EU has identified a set of 21st-century skills and competencies that will enable students to navigate the complexities of modern life. Storytelling, with its emphasis on communication, critical thinking, and creativity, is an ideal vehicle for developing these essential skills. In the CWL, students learn how to think, collaborate, and solve problems in innovative ways.

One of the key competencies developed through storytelling is **critical thinking**. As students work the problem and craft their narrative of the solution, they must analyse information, evaluate different perspectives, and construct logical arguments. This process helps them develop the ability to think critically about the world around them and to approach problems with a creative and open mind. These skills are not only valuable in the classroom but also in real-world situations where they will need to make informed decisions and solve complex problems.

Another important aspect of 21st-century skills is **digital literacy**. In a CWL, students can explore how to use research tools, digital storytelling, or collaborative platforms to enhance their activities. By integrating technology into storytelling, students become more proficient in using digital tools, which is increasingly important in today's technology-driven world. Additionally, the collaborative nature of the CWLs helps students develop interpersonal skills, such as communication and teamwork.

3.3 Incorporating Problem-Based & Project-Based Learning

Problem-based learning (PBL) and project-based learning (PBL) are two powerful methodologies that can be effectively incorporated into the CWL to enhance students' engagement and learning outcomes. Both approaches place students at the centre of the learning process, encouraging them to take an active role in their education by exploring real-world problems and creating meaningful projects. In the context of a CWL, these methodologies can be particularly effective in helping students develop both their writing skills and their ability to think critically and creatively.

In **problem-based learning**, students are presented with a complex, open-ended problem that they must solve through research, collaboration, and creative thinking. This approach helps them develop a deeper understanding of the issues they are exploring.

Project-based learning involves students working on an extended project that integrates various aspects of their learning. In a CWL, this typically takes the form of a long-term storytelling project. By engaging in these projects, students learn to plan, manage time, and collaborate with others, all while applying their storytelling skills in a meaningful and practical context. Both problem-based and project-based learning in the CWL hone their storytelling abilities and how they can be used to maximise learning and impact in the world.

3.4 Integration of Storytelling into STEM/STE(A)M

The integration of STEM (Science, Technology, Engineering, and Mathematics) and STE(A)M (which adds Arts to the mix) into storytelling offers a unique opportunity to blend analytical and creative thinking. In a CWL, this integration can take any form, from writing science fiction stories that explore futuristic technologies to creating poems inspired by mathematical patterns or scientific

phenomena, as long as they are coherent. By combining STEM/STE(A)M with storytelling, students can develop a richer understanding of both disciplines and how they can complement each other.

One of the key benefits of integrating STEM/STE(A)M into storytelling is that it encourages interdisciplinary thinking. Students learn to draw connections between different fields of knowledge, which enhances their ability to think critically and creatively. This not only deepens their understanding of the scientific content but also improves their ability to communicate complex ideas through writing.

Additionally, integrating storytelling of STEM/STE(A)M can help students develop a greater appreciation for the role of creativity in all areas of life, including science and technology. By exploring STEM fields in creative ways, students can see how innovation and imagination are essential components of scientific and technological advancement. This approach helps make STEM subjects relatable for students who might otherwise see them as inaccessible or removed from their interests. By incorporating STEM/STE(A)M into the CWL, you can help students develop a more holistic and integrated approach to learning, and enjoy the learning process.

3.5 Student-Centred Learning in CWL

3.5.1 Teachers as Leaders of Learning

In a student-centred CWL, the role of the teacher shifts from being the primary source of knowledge to being a facilitator of learning. As the leader of the CWL, your responsibility is to guide students through the creative process, helping them discover their own voices and develop their storytelling skills while tackling new subjects. This approach requires an understanding of each student's individual needs, strengths, and interests, as well as the flexibility to adapt your teaching methods to support their learning.

Part of your key actions in a student-centred CWL is to create an environment where students feel empowered to take risks and explore new ideas to solve the problem at hand. This involves providing opportunities for students to make choices about what they produce, how they realise it, and how they share their work. By giving students ownership over their own outputs, you endow them with the responsibility of their learning and of the message they want to get across.

It's also important to model the behaviours and attitudes you want to see in your students. This means being open to new ideas, embracing challenges, and demonstrating a commitment to the process. Being willing to engage and share your own experiences, including the challenges and setbacks you've faced, you can help students see that storytelling is a journey that involves both successes and failures. This approach will build trust with your students and help them develop resilience and perseverance.

3.5.2 Engaging Students in Storytelling

Engaging students in storytelling requires more than just providing them with prompts and assignments; it involves creating a dynamic and interactive learning environment where students feel motivated and excited. One of the most effective ways to engage students is by making storytelling relevant to their lives and interests. This can be achieved by allowing students to choose their own topics, ensuring the problem at hand concerns something they care about, and connecting the project to real-world events and experiences.

Another key strategy for engaging students in storytelling is to use a variety of methods and activities that cater to different learning styles. You might incorporate visual prompts, multimedia tools, or collaborative storytelling activities into your CWL. These diverse approaches help keep your students interested and also help them develop a range of skills and perspectives. Additionally, incorporating technology into your CWL can enhance student engagement by allowing them to experiment with digital storytelling, online publishing, and interactive writing platforms.

Finally, it's important to create a supportive and inclusive environment where all students feel valued and encouraged to participate. This involves fostering a classroom culture of respect, collaboration, and positive reinforcement. Encourage students to share their work with peers, provide constructive feedback, and celebrate each other's successes. By creating a sense of community in your CWL, you help students build confidence in their writing abilities and develop a lifelong love of writing.

4. Welcoming Ideas

4.1 Getting Started

Stimulating creativity in students is one of the primary goals of the CWL, and it starts with creating a classroom environment that encourages imaginative thinking. The first step in this process is to help students embrace the idea that while solutions to a problem may be numbered, the ways to narrate the solution-finding process are not. This can be achieved through a variety of activities and exercises designed to spark their imagination and get them thinking outside the box.

One effective way to stimulate creativity is to use creative prompts that challenge students to think in new and unexpected ways. These prompts can be visual, such as a mysterious photograph, or conceptual, like a "what if" scenario that requires students to imagine an alternate reality. The goal is to present students with a starting point that is intriguing and open-ended, allowing them to take the idea in any direction they choose. By providing a wide range of prompts, you give students the freedom to explore their creativity in ways that feel natural and exciting to them.

Another key aspect of stimulating creativity is to create a classroom culture that values experimentation and initiative. Encourage students to try new writing

styles, genres, and techniques, even if they are outside of their comfort zones. Emphasise that the process of creating is just as important as the final product, and that mistakes and failures are a natural part of learning. By fostering a supportive environment where creativity is celebrated, you help students develop the confidence and courage to express themselves in bold and innovative ways.

4.2 Simplifying Complexity

Creative projects can sometimes feel overwhelming to students, especially when they involve complex ideas or multiple steps. As the facilitator of the CWL, it's your role to help students navigate these challenges by showing them how to break down complex projects into manageable parts. This process not only makes the projects more approachable but also teaches students valuable skills in planning, organisation, and problem-solving.

The first step in simplifying complexity is to help students clarify their goals and vision for the project. Encourage them to start by identifying the core idea or message they want to convey, and then to break it down into smaller, more specific tasks. For example, if they are working on a fictional story to narrate their findings, they might begin by outlining the main plot points, developing the characters, and then writing each chapter one at a time. By breaking the project into smaller pieces, students can focus on one aspect at a time without feeling overwhelmed by the scope of the entire project.

Another effective strategy for simplifying complexity is to use scaffolding techniques, where you provide students with a structured framework to guide their work. This might involve creating a timeline with specific milestones, offering templates or graphic organisers to help with planning, or providing checklists to track progress. Scaffolding not only helps students manage their projects but also builds their confidence as they see their work taking shape step by step. This helps students learn to tackle complex tasks with confidence and ease by breaking down and organising their creative projects.

4.3 Brainstorming Techniques

Brainstorming is a crucial part of the creative process, providing students with the opportunity to generate ideas, explore possibilities, and find inspiration. In the CWL, brainstorming sessions can be a powerful way to kickstart the creative projects and to help students overcome their blocks. By using a variety of brainstorming techniques, you can encourage students to think freely and expansively, leading to more innovative and original writing.

Here are some of the most popular brainstorming techniques:

1. **mind mapping**, where students start with a central idea and then branch out with related concepts, images, or words. This visual approach helps students see connections between ideas and can often lead to unexpected insights.
2. **free writing**, where students write continuously for a set period of time without worrying about grammar, spelling, or coherence. The goal is to get ideas flowing onto the page, which can later be refined and developed into more structured writing.
3. **Collaborative brainstorming** is another powerful tool, where students work together to generate ideas and build on each other's suggestions. This can be done through group discussions, idea-sharing sessions, or even online platforms where students can contribute and comment on each other's ideas. Collaborative brainstorming not only stimulates creativity but also fosters a sense of community and collective ownership of the writing process.

Several other techniques are available. For further details, see the Training Materials.

4.4 Problem-Solving Strategies in storytelling

Storytelling often involves encountering and overcoming various challenges, from plot inconsistencies to character development issues. Teaching students

problem-solving strategies in storytelling equips them with the tools they need to navigate these challenges and improve their writing. These strategies encourage students to approach writing problems with a critical and analytical mindset, leading to more effective and polished work.

One effective problem-solving strategy is to encourage students to step back and analyse the issue from different perspectives. A shift in perspective can often reveal new possibilities and solutions that were not initially apparent. Additionally, encouraging students to ask "what if" questions can help them explore alternative scenarios and outcomes, leading to more creative and original writing.

Another important strategy is to teach students the **value of revision** and the iterative nature of the writing process. Problems in writing are often best solved through multiple drafts, where students can experiment with different approaches, receive feedback, and refine their work. Encourage students to view their writing as a work in progress and to embrace the idea that solving writing problems is an ongoing process that requires patience, persistence, and creativity. By fostering a problem-solving mindset in your CWL, you help students develop the resilience and adaptability they need to become successful writers.

5. Working Together: Collaborative Writing

5.1 Introduction to Teamwork in CWL

CWL offers students the opportunity to work together, share ideas, and create something greater than the sum of its parts. When students engage in collaborative storytelling, they learn not only how to express their own ideas but also how to listen to and build on the ideas of others. This process of teamwork fosters a sense of community and collective creativity, making the learning experience more dynamic and enriching for all involved.

In the CWL, collaborative storytelling can take many forms, from co-authoring a story or script to working together on a class anthology or digital project. These activities encourage students to negotiate ideas, resolve conflicts, and combine their unique strengths and perspectives to create a cohesive final product. By working together, students learn valuable skills such as communication, compromise, and consensus-building, which are essential not only in writing but in many areas of life.

Collaborative storytelling also provides students with the opportunity to receive feedback and support from their peers. This peer-to-peer interaction helps students refine their ideas, improve their writing, and gain new insights into the

process. Additionally, working in a team can make the writing process more enjoyable and less intimidating, as students share the workload and encourage each other to keep going. By incorporating collaborative storytelling into your CWL, you create a supportive and inclusive environment where all students can thrive.

5.2 Managing Writing Teams

Managing teams in the CWL requires careful planning and a clear understanding of group dynamics. As the facilitator, your role is to guide the team's progress, ensure that all members are contributing to the extent of their ability, and help resolve any conflicts that arise. Effective team management begins with clearly defining roles and responsibilities within the group. This might involve assigning specific tasks, such as research, drafting, or editing, based on each student's strengths and interests.

It's also important to establish clear goals and deadlines for the project to keep the team focused and on track. Regular check-ins and progress meetings can help ensure that everyone is on the same page and that any issues are addressed promptly. Encourage students to communicate openly and to provide constructive feedback to each other. This not only helps the team work more effectively but also fosters a positive and collaborative atmosphere where everyone feels valued and supported.

Managing teams also involves being attuned to the interpersonal dynamics within the group. Pay attention to how students interact with each other and be prepared to step in if conflicts arise. Teach students strategies for resolving disagreements, such as active listening, compromise, and finding common ground. By helping students navigate the challenges of teamwork, you not only enhance their writing experience but also prepare them for collaborative work in other areas of their lives. Through effective team management, you ensure that collaborative projects in the CWL are successful and rewarding for all involved.

5.3 Peer Review and Feedback

Peer review is a critical component of the CWL, offering students the opportunity to give and receive feedback in a constructive and supportive environment. The process of peer review helps students develop their critical thinking skills, as they learn to evaluate their peers' work and provide meaningful suggestions for improvement. It also teaches them how to accept feedback gracefully and use it to enhance their own writing.

In the CWL, peer review sessions can be structured in various ways, depending on the needs of the students and the nature of the writing projects. For example, students read each other's work in small groups and provide detailed feedback on specific aspects. Alternatively, you might incorporate more informal peer review activities, such as quick feedback sessions or peer editing exercises, into your regular CWL sessions.

To make peer review effective, it's important to establish clear guidelines and expectations for both giving and receiving feedback. Encourage students to focus on specific, actionable suggestions rather than vague or overly critical comments. Teach them the importance of balancing praise with constructive criticism, and remind them that the goal of peer review is to help each other grow as writers. By fostering a culture of respectful and supportive feedback in the CWL, you create a learning environment where students feel empowered to take risks and improve their writing.

5.4 Steering Group Projects

Steering group projects in the CWL involves guiding students through the process of planning, executing, and completing a collaborative storytelling project. Your role as the facilitator is to ensure that the project stays on track and that all students are actively engaged in the process. This requires a combination of leadership, organisation, and flexibility.

One of the first steps in steering a group project is to help the group define its goals and establish a clear plan of action. This will likely involve brainstorming ideas, setting milestones, and assigning roles and responsibilities to each group member. It's important to ensure that the workload is distributed fairly and that each student has a meaningful role to play in the project. Regular check-ins and progress meetings can help keep the project on track and allow the group to address any challenges or obstacles that arise.

As the project progresses, your role is to provide guidance and support, while allowing the students to take ownership of their work. Encourage them to collaborate effectively, to communicate openly, and to be flexible in adapting to changes or setbacks. Be prepared to step in if the group encounters difficulties, whether it's a creative block, a conflict between members, or a logistical challenge. By steering the group project with a balance of oversight and autonomy, you help students develop their collaborative skills and produce a final product they can be proud of.

5.5 Assignments and Evaluation

Assignments and evaluation in the CWL serve the purpose of assessing students' progress and providing them with the feedback they need. However, in a storytelling context, evaluation should go beyond simply grading a final product. Instead, it should focus on the process of writing, including the development of ideas, the revision process, and the ability to incorporate feedback.

You might use rubrics to evaluate specific aspects of students' writing, such as creativity, coherence, and technical accuracy. These rubrics should be clear and transparent, so students understand the criteria by which their work is being assessed. It's important to provide regular, constructive feedback that is both encouraging and instructive. By focusing on process-oriented evaluation in the CWL, you help students develop their storytelling skills in a supportive and meaningful way.

6. Weaving Stories

6.1 Getting Started

Creative storytelling involves bringing together various narrative elements to create a cohesive and engaging story. Students will have to combine plot, character, setting, and theme into a unified whole. This process requires both creativity and discipline, as students learn to balance these elements and weave them together in a way that is conducive to their results and captures the audience's attention.

One of the first steps is for students to develop a strong narrative framework. This might involve creating a detailed outline or storyboard that maps out the key events and turning points in the story. Encourage students to think about how the plot will unfold, how characters will evolve, and how the setting will influence the action. By starting with a clear structure, students can ensure that their story has a solid foundation on which to build.

Once the framework is in place, the next step is to focus on the details that bring the story to life. This involves crafting vivid descriptions, writing realistic dialogue, and creating dynamic scenes that move the plot forward. Encourage students to experiment with different narrative techniques, such as flashbacks, foreshadowing, and varying points of view.

6.2 Building Blocks of Storytelling

The building blocks of storytelling are the fundamental elements that make up a well-crafted narrative. In the CWL, it's important to teach students how to use these building blocks effectively to create stories that are both engaging and meaningful. The main elements include plot, character, setting, conflict, and theme, each of which plays a role in shaping the story.

The plot is the sequence of events that make up the story, and it serves as the backbone of the narrative. Encourage students to think carefully about the structure of their plot, including the exposition, rising action, climax, falling action, and resolution. A well-constructed plot keeps the reader engaged and provides a clear direction for the story. Characters are the driving force behind the plot, and their development is key to creating a compelling story. Teach students how to create multidimensional characters with distinct personalities, motivations, and conflicts that drive the story forward.

Setting and conflict are also important components of storytelling. The setting provides the backdrop against which the story unfolds, and it can influence the mood, tone, and atmosphere of the narrative. Encourage students to use setting not just as a passive background, but as an active element that shapes the story's events. Conflict is what drives the plot and creates tension, whether it's an internal struggle within a character or an external challenge they must overcome. Finally, a theme is the underlying message or insight that the story conveys. Helping students understand and use these building blocks means equipping them with the tools they need to create stories that are both structurally sound and emotionally resonant.

6.3 storytelling Exercises

Storytelling exercises provide students with opportunities to practise their writing skills, experiment with new techniques, and generate ideas for their stories. These exercises are flexible and adaptable, allowing you to tailor them to the needs and interests of your students. Whether you're working with

beginners or more advanced writers, storytelling exercises can help students build confidence and develop their unique voices.

One type of storytelling exercise is the use of prompts, which can be visual, verbal, or situational. Prompts are designed to spark the imagination and get students writing quickly, without overthinking or self-censoring. For example, you might provide a photograph and ask students to write a story inspired by the image, or present a scenario and challenge them to write about what happens next. Prompts are especially useful for overcoming writer's block and encouraging spontaneous creativity.

Another valuable exercise is the use of writing constraints, where students are given specific limitations or rules to follow in their writing. For example, they might be asked to write a story using only present tense, or to create a narrative that takes place entirely in a single location. These constraints force students to think creatively and to find innovative solutions to the challenges posed by the exercise. Finally, consider incorporating collaborative writing exercises, where students work together. This not only fosters teamwork but also exposes students to different writing styles and perspectives.

6.4 Overcoming Writer's Block

Writer's block is a common challenge faced by writers of all levels, and it can be particularly frustrating for students in the CWL. It's important to address writer's block head-on and provide students with the tools and techniques they need to overcome it.

One effective strategy for overcoming writer's block is to encourage students to change their writing environment. A new setting can often stimulate creativity and help students see their work from a fresh perspective. This might involve moving to a different location, or even using a different medium, such as writing by hand instead of typing. By changing the environment, students can often break free from the mental constraints that are causing the block.

Another approach is to use free writing as a way to bypass the "inner critic" that often contributes to writer's block. Encourage students to write continuously for a set period of time without worrying about grammar, spelling, or coherence. The goal is to get words on the page and to silence the critical voice that is holding them back. Free writing can help students rediscover the joy of writing and can often lead to new ideas and insights. Finally, remind students that writer's block is a normal part of the creative process and that it's okay to take breaks and come back to their work later. Normalising the experience and providing supportive strategies, will students develop resilience and persistence in their writing.

# 7. CWL Structure and Organization

7.1 Overview of CWL Structure

The structure of the storytelling Laboratory (CWL) is the foundation upon which all activities and learning experiences are built. A well-organised CWL provides students with a clear framework for their storytelling journey, and ensures they have the guidance and support they need to develop their skills and explore their creativity. The structure of the CWL should be flexible enough to accommodate a variety of learning styles, while also providing enough structure to keep students focused and on track.

7.2 Creating a CWL Diagram

Creating a diagram of your CWL structure can be a valuable tool for planning and organising your storytelling program. A visual representation of the CWL structure helps you see how different components fit together and ensures that all aspects of the program are aligned with your educational goals. It also provides a clear roadmap for students, helping them understand what to expect and how to navigate the different stages of their storytelling journey.
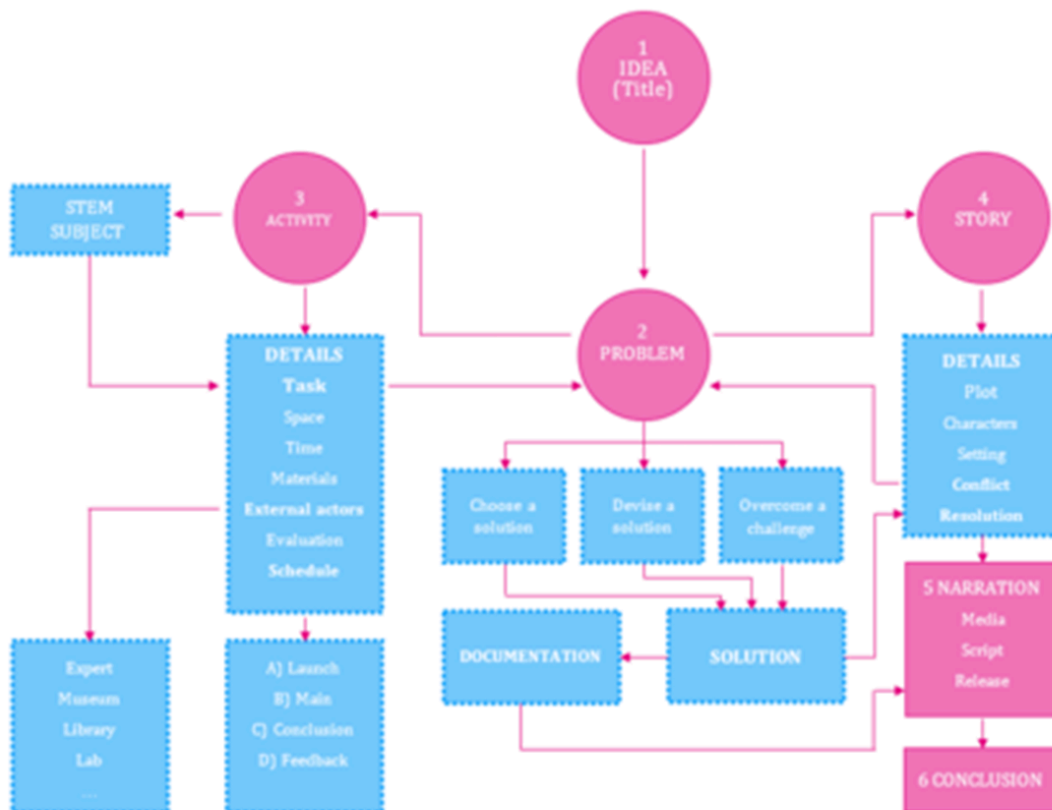
7.3 CWL Checklist: What to Include

A CWL checklist is an essential tool for ensuring that your storytelling Laboratory is well-equipped and ready to support your students' storytelling efforts. This checklist includes all the physical, digital, and instructional resources you need to create a successful CWL environment.

Element	Detail	Descriptor	Defined
1 THE IDEA			
Title		The title of your CWL	Yes ☐ No ☐
2 THE PROBLEM			
Subject 1	Required	What kind of problem is it	Yes ☐ No ☐
		What STEM subject(s) do your students need to solve it?	Yes ☐ No ☐
		How does it fit into the narrative of your story?	Yes ☐ No ☐
3 THE ACTIVITY			
Task		What your students have to do or perform to find a solution to the Problem (connect to Conflict in "Story")	Yes ☐ No ☐
Place		Where the activity takes place	Yes ☐ No ☐
Time		How long does the activity lasts	Yes ☐ No ☐
Materials		What your students can must use to perform the task	Yes ☐ No ☐
External Actors		Whose help they need to perform the task	Yes ☐ No ☐
Evaluation		How are young to grade your students' performance	Yes ☐ No ☐
Schedule	Launch	How are you going to launch your CWL? (communication to families, school, event...)	Yes ☐ No ☐
	Main activity	Start date and end date	Yes ☐ No ☐
	Closing	How are you going to close the activity (connecting it to the Narration)?	Yes ☐ No ☐
	Feedback	How you are going to collect feedback from all the involved parties	Yes ☐ No ☐

Element	Detail	Descriptor	Completed	
4 THE STORY				
Plot		The title of your CWL	Yes ☐	No ☐
Characters		What happens in the story	Yes ☐	No ☐
Setting		Where and when the story takes place	Yes ☐	No ☐
Conflict		The problem your students help the protagonists solve (connects to Task in "activity"	Yes ☐	No ☐
Resolution		What happens if the problem is solved?	Yes ☐	No ☐
5 THE NARRATION				
Media		Students select a medium to tell their story	Yes ☐	No ☐
Script		Students work on the script / storyboard	Yes ☐	No ☐
Output Production		Students produce the output	Yes ☐	No ☐
Release		How are you going to show the students' output (party, school event, online event…)?	Yes ☐	No ☐
CONCLUSION				
Closing		How are you going to close the activity (connects to Narration)	Yes ☐	No ☐

7.4 Finalising and Concluding Your CWL

Finalising and concluding your CWL involves wrapping up the project in a way that celebrates students' achievements and provides closure to the storytelling journey. This process is an important part of the CWL, as it allows students to reflect on their growth as storytellers and to take pride in the work they've accomplished. It also provides an opportunity for you to assess the overall success of the project and to gather feedback for future improvements.

One way to conclude your CWL is by organising a final showcase or presentation where students share their best work with their peers, teachers, and even parents. A final showcase not only gives students a chance to celebrate their achievements but also helps them develop confidence in their writing abilities and public speaking skills.

After the final showcase, take time to reflect on the CWL experience with your students. A group discussion where students share what they've learned, the challenges they faced, and the goals they have achieved. Concluding your CWL in a thoughtful and celebratory manner, will leave with a sense of accomplishment and motivation to continue their storytelling journey.

8. External Stakeholders Involvement

A whole school approach (WSA) belongs to a learner-centred vision of education, within the frame of a communitarian sense of learning and development. International bodies and their declarations introduce WSA as a key factor for quality education as well as for building up an inclusive system which provides education for all.

Involving stakeholders other than teachers and students in a school CWL project can have several benefits and sometimes it is a prerequisite of success. Parents, government agencies, scientific organisations such as universities or science centres, non-profit organizations, and industry partners can provide resources, funding, expertise, and mentorship to support student learning. However, there are also potential drawbacks to external stakeholder involvement if not planned well. Each collaboration with a parent or external stakeholder must be carefully investigated in order to be in line with the policies and values of the schools.

Engaging parents and grandparents

Research shows that family factors have the biggest impact on students' academic achievement. Parental engagement in their children's learning is far more predictive of students' academic success than the family's socioeconomic status. The quality of teachers is the second or third most crucial factor

depending on the age of the child (over the age of 11 the other is the peer group). If parents (in this guide we use the term to refer to all family members who function as caretakers of a child) and teachers collaborate, they can make a huge difference in students' learning.

For the same reason, they need to be familiar with your teaching approach as they can also act as gatekeepers if they do not understand why a student-centred new methods like a CWL is better for students' learning than traditional methods.

There are several factors that make parents/grandparents essential when creating a successful CWL project.

- Parents as a resource having specific skills or knowledge

- Parents in fundraising if your project needs additional funds, e.g. if travelling is involved.

- Parents as classroom educators as experts on your topic (for this, it is important to be aware of relevant parent knowledge or skills)

- Grandparents have time

- Grandparents have life experience to build on

Local community participation

Engaging (or not) with the local community is an important decision to be made by the team. Early outreach can lead to an early buy-in meaning that there is an interest about what you are doing among local community actors. If managed well, it can support your project from the y research phase final product.

· Local community can be a resource

· Local community actors can also help you by providing safe and suitable experimenting or creative space if the school is not available or suitable for some reason.

·   The most relevant community actors that you can collaborate with are local non-formal education providers (e.g. museums, science centres, specialised NGOs).

·   They can be engaged in the whole process systematically or on an ad hoc basis.

Higher education institutions and vocational education providers

Universities and vocational education providers can provide mentors or guest lecturers for your CWL project. They may also have access to cutting-edge scientific equipment or laboratories, which can enhance students' learning possibilities. However, you need to be aware that they may not be prepared to work with younger students and may not have the necessary teaching skills.

Considerations – external stakeholder engagement checklist

Answer these questions to plan the engagement of the abovementioned actors to ensure that they really add to your project and not make life more difficult. If you need to engage people who are not teachers at your school or students, you may need to make decisions on the venue where your students work on the CWL project or when the activities are taking place (probably not as part of regular school schedule)

1. What do you need external help with in the CWL project?

2. What will be their role in the CWL project?

3. What are the benefits of their participation? (e.g. parents not acting as gatekeepers)

4. What skills they may lack that you have to be aware of?

5. Do you need to ask for permission or clearance to engage them?

6. Are they available during school hours?

7. Will they come to the school, or will they provide an external space?

8. Are there any financial strings attached? Do you have to pay for their participation?

9. Is it a special collaboration, or will you make it regular and systematic?

Once you have answered these questions, you can make a good plan to work with them.

9. Digital and Educational Tools

9.1 Introduction to Digital Tools for CWL

In today's digital age, technology plays a significant role in enhancing the storytelling experience. The integration of digital tools into the CWL can open up new possibilities for student engagement, collaboration, and expression. These tools can provide students with the means to experiment with different formats, share their work with a broader audience, and receive feedback from their peers. By incorporating digital tools into your CWL, you can create a more dynamic and interactive learning environment that meets the needs of 21st-century learners.

One of the primary benefits of using digital tools in the CWL is the ability to enhance the writing process through technology. For example, online research tools enable them to access a wealth of information to support their writing. Digital tools also offer opportunities for creative expression beyond traditional text, such as through multimedia projects that incorporate images, audio, and video. These tools can help students bring their stories to life in new and innovative ways.

Another key advantage of digital tools is the ability to facilitate collaboration and communication. Online platforms and cloud-based tools make it easy for students to work together on writing projects, share their work, and provide feedback in real-time. This fosters a sense of community within the CWL and encourages students to learn from each other. Additionally, digital tools can help students develop important digital literacy skills that are essential for success in today's technology-driven world.

For a full list, see our Training Material.