



Performance Needs Assessment

Client: Corrugafix

Table of Contents

Part 1: Background of the Project	4
Summary of the Project	4
Research Strategy	4
Company Documents & Internal Reports	4
Employee Observations	5
Industry Best Practices	5
Part 2. Report the Needs Assessment	6
The Request	6
Business Need	6
Organizational Context	6
Type of Organization	6
Mission	6
Key Products and Services	6
Organizational Structure	7
External Context of the Organization	7
Internal Context of the Organization	8
Emerging Issues in the Organizational Context	8
Performance Problem	9
Scenario Current Performance	9
Scenario Ideal Performance	10
Current and Ideal Performance Process Maps	12
Gap Between the Current and Ideal Performance	13
Description of Performers	14
Context of the Performers	15
Risk Factors for Performance Improvement Efforts	16
Project Constraints	18
Part 3. Requirements	19
Business Objective	19
Competencies to Be Addressed	19
Performance Metrics	20

Individual Performance Metrics	20
Organizational Performance Metrics	21
Additional Insights Provided by Performance Metrics	21
References	22



Part 1: Background of the Project

Summary of the Project

Corrugafix is a Montreal-based company that designs and produces corrugated cardboard displays for retail environments. The company provides custom display solutions that assist businesses in presenting their products effectively. Despite experiencing strong demand for its services, it has faced operational inefficiencies and performance challenges that impact customer satisfaction and internal workflow. Sales associates often overpromise on delivery timelines, resulting in missed deadlines, overworked designers, and suboptimal project outcomes. Additionally, sales associates lack visibility into designers' expertise and availability, leading to ineffective project assignments. The assessment will identify key performance gaps affecting project timelines, workload distribution, and communication between departments. It will involve collaboration with the sales team, industrial designers, graphic designers, production managers, and customers. The ultimate goal is to optimize project workflows, enhance communication between sales and design teams, and implement project management practices that ensure realistic timelines, balanced workloads, and high-quality display solutions. Corrugafix aims to improve customer satisfaction, reduce production delays, and create a sustainable, efficient work environment that supports the company's growth.

Research Strategy

Multiple sources of information will be consulted to ensure a comprehensive Performance Needs Assessment. This research strategy combines document analysis and observations to identify areas for improvement.

Company Documents & Internal Reports

Type of source: Internal company documents, including past project communications, customer complaints about missed deadlines or design issues and internal reports.

Reason for consulting it: To understand past project management issues and identify recurring bottlenecks. These documents will help assess how often deadlines are missed and whether overworked designers lead to lower-quality projects.

Sources:

Sales commitments compared to actual deliveries

Customer feedback and complaints

Emails assigning projects to designers

Reports, including the number of completed projects, revision frequency, and rejected prototypes.

Employee Observations

Type of source: Observations of sales associates and designers in their daily workflow.

Reason for consulting it: To understand the interactions among sales associates, designers, production managers, and customers to assess how project requests are communicated, assigned, and executed.

Sources:

Sales associates discussing timelines and requests with customers

Designers receiving and processing project requests

Handoffs of projects among sales, design, and production teams

Industry Best Practices

Type of source: Research on best practices in project management, workload distribution, and sales-design collaboration in the display manufacturing industry.

Why did you consult it? To compare Corrugrafix workflow structure with industry standards and identify best practices that could be implemented.

Sources:

Case studies on effective project management in design and manufacturing companies

Research on optimizing sales and design teams' workflows

Part 2. Report the Needs Assessment

The Request

“We need to ensure that sales associates provide realistic project timelines to customers and assign projects to available designers with the appropriate expertise so we can meet deadlines, reduce stress on the team, and enhance customer satisfaction.”
(Source: Olivier, General Manager at Corrugafix.)

Business Need

The primary business need is to generate revenue by ensuring that projects are completed on time and meet customer expectations. By improving project scheduling, workload distribution, and communication between teams, Corrugafix can deliver high-quality displays within promised deadlines, resulting in higher customer satisfaction, repeat business, and increased sales opportunities.

Organizational Context

Type of Organization

Corrugafix is a privately owned client organization in the manufacturing and design industry. It caters to various retail brands and companies that need custom display solutions to enhance product visibility in stores.

Mission

Corrugafix's mission is to meet clients' needs on every project by understanding individual requirements, sharing strong retail knowledge, providing excellent customer service, and responding quickly. (*Point 1 Displays – Présentoirs Point 1 – Innovative Display Designs & Store Fixturing | Creative Upscale Innovative, n.d.*)

Key Products and Services

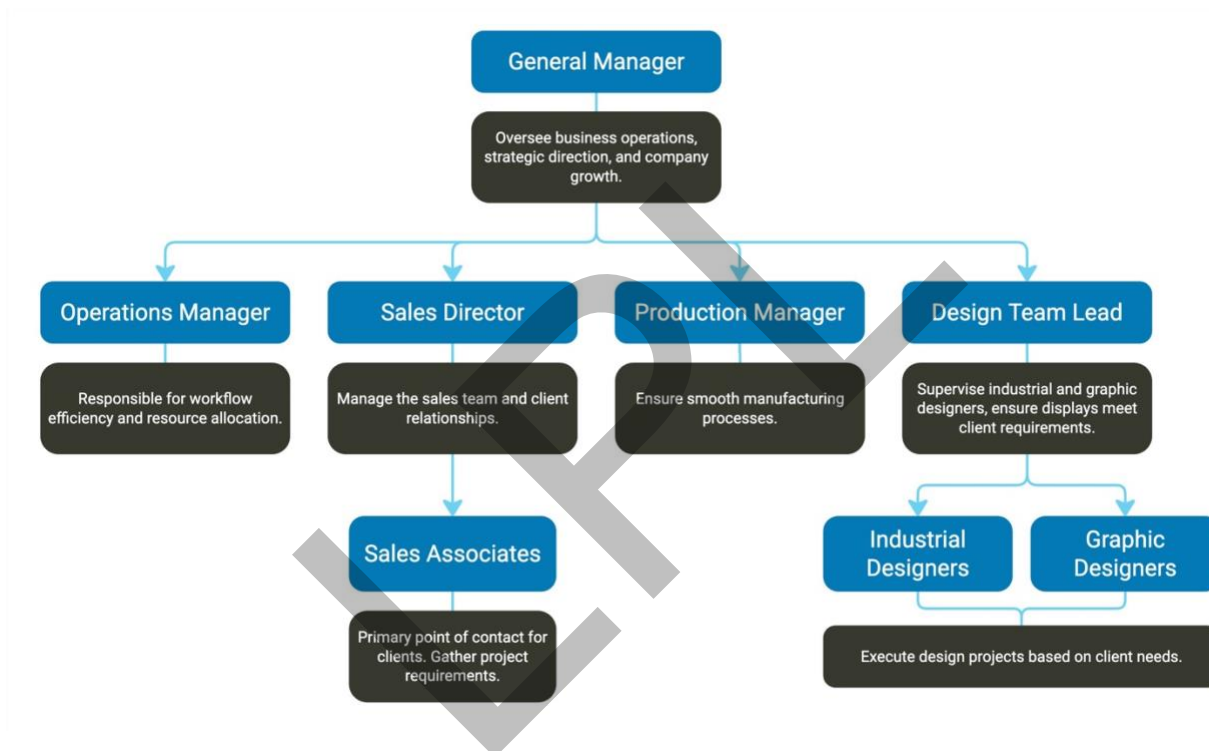
- Custom corrugated cardboard displays that are appealing and able to withstand retail environments.

- In-house design and manufacturing provide a one-stop solution for customers.
- Expertise in creating displays that enhance product visibility and drive sales.
- Eco-friendly display solutions that reduce environmental impact.

(Point 1 Displays – Présentoirs Point 1 – Innovative Display Designs & Store Fixturing | Creative Upscale Innovative, n.d.)

Organizational Structure

Corrugafix operates under the following hierarchical organizational structure.



External Context of the Organization

Economic Environment

The global corrugated board market was valued at USD 134.7 billion in 2022 and is projected to grow at an annual rate of 6.8% from 2023 to 2030, driven by the expansion of e-commerce and increasing demand for sustainable packaging. (Corrugated Board Market Size, Share & Growth Report, 2030, n.d.)

Legal Environment

In Canada, the Consumer Packaging and Labelling Act requires that prepackaged consumer products display accurate and meaningful labeling information to help

consumers make informed purchasing decisions (*Consumer Packaging and Labelling Regulations*, n.d.). Also, the Canadian Corrugated and Containerboard Association (CCCA) promotes industry standards and advancements in this field (*About The Canadian Corrugated and Containerboard Association (CCCA)*, n.d.).

Social Environment

There is an increasing consumer preference for environmentally sustainable packaging solutions. Corrugated cardboard packaging has gained popularity due to its renewable source, recyclability, lower carbon footprint compared to other materials, and its customizable, durable, and cost-effective nature (*How Corrugated Packaging Is Replacing Plastic: A Sustainable Solution - Norlands*, 2024). This change in consumer behavior offers companies like Corrugafix the chance to align their products with market demands for sustainability.

Internal Context of the Organization

Corrugafix experiences operational inefficiencies that impact workflow and customer satisfaction. Miscommunication between departments persists, and no formal communication or feedback processes have been implemented. Additionally, no automated project management system is currently in place. Sales associates often set unrealistic expectations, and the distribution of workload among designers is ineffective. Teams are facing frustration and burnout. Corrugafix finds it difficult to capitalize on market opportunities due to limited capabilities. Despite these challenges, the company remains committed to delivering custom corrugate cardboard display solutions that continue to drive business. However, there is a risk of customer dissatisfaction and reduced repeat business.

Emerging Issues in the Organizational Context

Low long-term designer retention is an emerging issue within the organization. While it is not the core performance problem currently being analyzed, it affects workflow efficiency, knowledge retention, and overall business stability. A high turnover rate among designers reduces the company's ability to build an experienced team, resulting in longer project timelines, inconsistent quality, and increased training costs.

This problem may also indicate deeper structural issues, such as designer burnout, which can discourage designers from staying in their positions for the long term. The absence of career development opportunities further complicates the retention of skilled employees.

Addressing designer retention could improve project efficiency and ultimately enhance the company's capacity to meet demand without delays. While this may be a broader issue, it offers crucial context for understanding Corrugrafix's challenges.

Performance Problem

Scenario Current Performance

Marc, a sales associate at Corrugrafix, begins his day by checking emails from clients. He reviews a new request from a makeup brand seeking a custom point-of-purchase display. Marc responds quickly, thanking the client and requesting additional details, such as product dimensions, display placement, and artwork preferences. As the conversation continues, the client asks when the display can be ready. Drawing on past experiences, Marc offers an estimated timeline, noting that it's a modification of an existing design, and reassures the client that the project will run smoothly.

After finalizing the project details, Marc forwards the request to Sophie, an industrial designer. Sophie is currently working on several designs, each with varying levels of complexity. After reviewing the request, she realizes that it is not just a modification of an existing design; it requires a new structural design. She begins sketching ideas while referencing similar past projects. Some displays take longer to develop and require multiple iterations, but Sophie works quickly to meet the expected deadlines.

As Sophie works on the design, the sales team keeps in touch with the client, updating them on progress. The client follows up with an email requesting changes to the display size and artwork. Sophie, who is already working on a tight schedule, adjusts the design

while managing other ongoing projects. When the first render is ready, she shares it with the sales team for feedback before sending it to the client.

Meanwhile, production schedules are filling up as previously approved projects move forward. The production team receives last-minute design updates for specific displays, which require them to adjust their workflow. Additionally, some projects take longer to assemble than anticipated, impacting delivery timelines. As Sophie finalizes the prototype, she checks in with the production team to ensure the design is feasible. The tight deadlines leave little room for testing and refinements.

Once the prototype is ready, Marc informs the client and shares photos for approval. The client responds with additional modifications, requiring Sophie to revisit the CAD model. While she makes the necessary adjustments, the sales team manages expectations. Now operating at full capacity, the production team begins preparing for assembly while keeping an eye on any incoming changes.

As the project nears completion, Sophie checks for last-minute quality issues before the displays move to production. Marc informs the client that the final timeline has been adjusted. Although the project is completed and delivered, some steps took longer than expected, requiring extra effort from the designers and production staff to meet commitments. The team holds a brief meeting to reflect on the challenges before moving on to the next project.

Scenario Ideal Performance

Marc, a sales associate at Corrugafix, starts his day by checking the project management system to review ongoing and new project requests. He notices a new request from a makeup brand looking for a custom point-of-purchase display. The customer has filled out a digital form on the website with all requirements, enabling the system to automatically collect crucial project details such as product dimensions, display placement, and artwork preferences. He evaluates the project's complexity and

consults the designer availability dashboard to determine who is best suited for the task before responding to the client.

Marc approaches the design team leader to confirm that the estimated timeline is realistic, taking into account the project's complexity and the designers' workload. Confident in the proposed timeline, he responds to the client, providing a reasonable deadline and any additional information they may need. The client appreciates the clarity and confirms the order.

Sophie, an industrial designer assigned to the project, receives the request notification through the project management system that automatically tracks her current workload and upcoming deadlines. She reviews the client's requirements and notes that the display will need a new structural design. She begins by referencing similar past projects stored in the company's design archive, which helps her streamline the process.

As Sophie works on the design, she checks the system for the display guidelines of the specific store where the display will be showcased and collaborates with the graphic design team to ensure all elements align with the client's branding. She prepares an initial 3D render and shares it with Marc, who reviews the design before sending it to the client. The client requests a minor adjustment, which Sophie makes quickly.

Meanwhile, the production team is aware of the project and can access real-time updates through the system. The prototype is assembled and tested. Once the design is finalized and the client approves the prototype, Sophie submits the technical drawings and material specifications directly into the production queue, allowing production managers to prepare materials without delays.

Sophie and the production manager review the assembly process together before starting production. Marc follows up with the client, sharing high-quality photos of the prototype along with all final artworks for approval. The client is pleased with the results

and gives the green light for full production. Marc keeps the client updated on production progress and delivery timelines as the project moves through its final stages. The project is completed on time and meets client expectations.

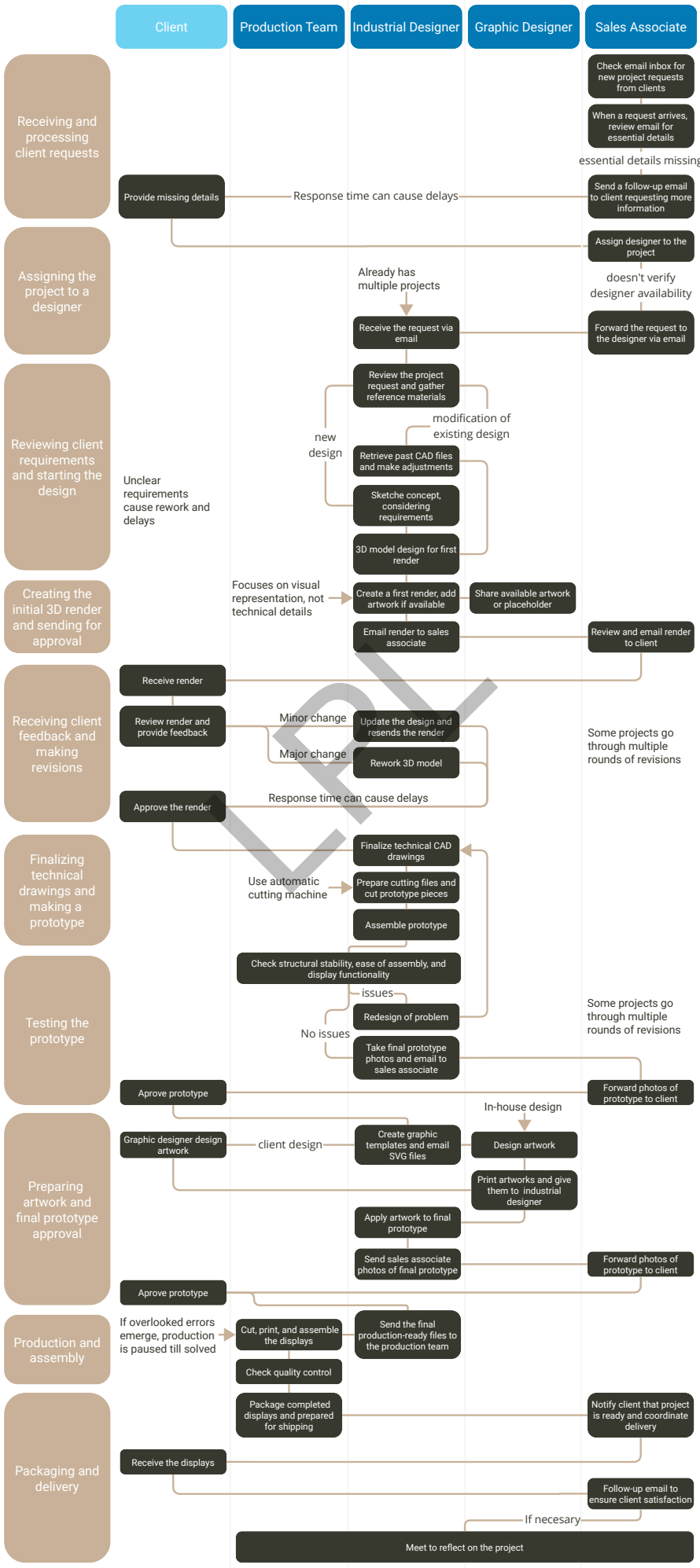
Current and Ideal Performance Process Maps

The following process maps describe processes and tasks for current and ideal performance. They are based on Rummler and Brache's "Managing the White Space" (1991). Process maps are relevant because they provide a holistic view of business operations, enabling organizations to visualize workflows across departments (Rummler & Brach, 1991).



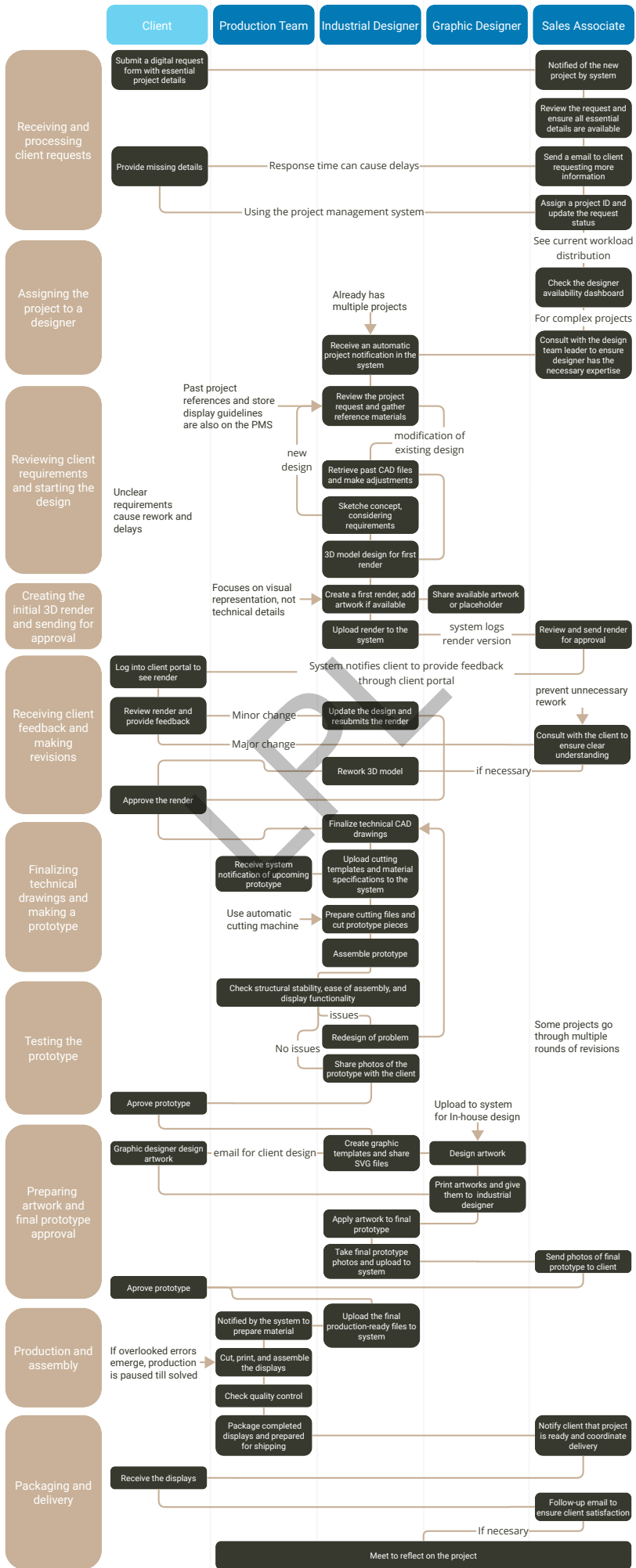
Current Performance

The end result is a custom corrugated cardboard display designed, approved and produced for a client.



Ideal Performance

The end result is a custom corrugated cardboard display that has been designed, approved, and produced for a client on time, meeting their needs.



Gap Between the Current and Ideal Performance

The gap between Corrugafix's current and ideal performance lies in workflow efficiency, project tracking, and team communication.

Current Performance	Ideal Performance
• Project requests are processed without confirming the availability and expertise of designers. This leads to uneven workload distribution and delays when projects are assigned to designers who lack the necessary skills to complete them on time. • Client feedback is handled through extensive email exchanges with sales associates, resulting in prolonged approval cycles.	• Ideal performance, compared to the current state, would involve a structured project management system, automated tracking of designer workloads, streamlined client approval processes, and real-time collaboration between sales, design, and production teams to ensure efficient, on-time project completion with minimal disruptions. • When significant changes are requested for 3D models, sales associates and designers ideally consult with clients to fully understand their needs before proceeding with redesigns. This approach minimizes potential rework.
The gap between Corrugafix's current and ideal performance lies in workflow efficiency, project tracking, and team communication.	

Performer Personas

Emilie, the Junior Designer

High Maintenance: Requires regular check-ins from experienced designers and additional time for revisions.

Age: 26

Position: Junior Industrial Designer

Years of experience: 1

Education: Bachelor's degree in industrial design

She has primarily focused on modifying existing displays rather than creating new structural designs. To ensure her work meets both structural and aesthetic standards, she often seeks additional feedback from senior designers.

Current Skill Level: Proficient in CAD modeling and modifying existing designs but requires more experience in structural problem-solving.

Influences: Consults senior designers for mentorship and follows design blogs and content creators.

Julio, the Versatile Designer

Medium Maintenance: Works independently but consults production staff for feasibility confirmation.

Age: 32

Position: Industrial Designer

Years of experience: 6

Education: Bachelor's degree in industrial design

He is efficient in creating new display designs and problem-solving during prototyping. He prefers validating ideas with production staff to ensure the final product is practical and cost-effective.

Current Skill Level: Strong in CAD design, prototyping, and collaborating with production but occasionally needs clarification on unique material constraints.

Influences: Engages in sustainable design forums, follows industry trends, and mentors junior designers.

Sofia, the Senior Design Lead

Low Maintenance: Works autonomously and provides guidance to the team.

Age: 40

Position: Senior Design Lead

Years of experience: 15

Education: Bachelor's degree in industrial design, Graphic Design Graduate Certificate

She has extensive experience in creating innovative displays, understanding structural limitations, and working closely with sales and production teams to ensure projects meet both creative and functional goals.

Current Skill Level: Expert in concept development, CAD, material selection, and process optimization.

Influences: Member of industrial design associations, frequently attends trade shows, and teaches design workshops.

(OpenAI)

Context of the Performers

This section uses Gilbert's Behavior Engineering Model (Stolovitch et al., 2006) (The International Institute for Innovative Instruction, 2019) to identify organizational and contextual issues affecting performance.

Context of the Performers			
	Stimulus	Response	Consequence
Environment	Information • Expectations: Sales associates lack clear guidelines for estimating realistic project timelines or assigning projects based on designer expertise and availability. • Guidelines: Formal workflow documentation is available; however, it is not utilized in practice to standardize the handoff process among sales, design, and production teams. • Feedback: Sales associates and designers lack consistent performance feedback, which makes it challenging to evaluate whether previous project commitments were realistic or feasible. • Job Expectation: Designers feel that their current workload distribution does not align with their expertise or working hours, leading to frustration and inefficiencies.	Resources • Project Management System: There is no centralized system for tracking project status, distributing workload, or managing client deadlines, which results in confusion and inefficiency. • Designer Availability Dashboard: Sales associates must manually assess designer workloads, resulting in imbalanced project assignments. • Historical Data Access: Accessing past project files and templates is confusing and requires navigating through numerous folders and versions, which makes redesigns and modifications more time-consuming. • Time Allocation: Designers are not given dedicated time for professional development, which could improve their ability to manage complex display designs efficiently.	Incentives • Performance-Based Incentives: Sales associates are incentivized to secure client commitments quickly but not to establish realistic timelines that correspond with production capacity. • Recognition for Collaboration: There are no formal incentives to promote teamwork among sales, design, and production teams. • Compensation for Overtime: Designers frequently work additional hours to meet tight deadlines, yet there is no extra compensation or structured workload management to alleviate this issue. • Wages & Retention: The wages of junior designers are not competitive, resulting in high turnover rates that affect the team's overall skill level and efficiency. • Career Growth: The availability of senior positions and opportunities for career mobility is limited, making it challenging to retain experienced designers.
	Knowledge • Understanding Project Timelines: Sales associates have a limited understanding of the time needed to design and prototype a display, resulting in unrealistic client commitments. • Design Expertise Levels: Some designers are less experienced in complex structural displays, leading to more revision cycles and longer project turnaround times.	Capacity • Workload Balance: Some designers handle multiple high-complexity projects simultaneously, while others have a lighter workload, leading to uneven work distribution and burnout. • Physical and Mental Stress: The pressure to meet unrealistic deadlines has resulted in stress, fatigue, and reduced job satisfaction among designers. • Team Communication Challenges: The absence of structured communication among the sales, design, and production teams leads to misunderstandings and last-minute production adjustments.	Motivation • Desire for Efficiency: Both sales associates and designers want to improve workflow efficiency but lack the appropriate tools and structured processes to achieve this. • Commitment to Quality: Employees take pride in creating high-quality custom displays; however, frustration arises when unrealistic deadlines compromise quality standards. • Job Satisfaction: Designers who face heavy workloads or frequent last-minute changes tend to feel disengaged and unmotivated, which impacts their performance and long-term retention.
Individual			

Organizational Level for Intervention

This issue needs to be addressed at the systemic level, requiring changes in policy, workflow structure, and project management tools. Specific interventions should focus on:

- Implementing a project management system for workload tracking and automated project assignments.
- Creating structured communication channels between sales, design, and production teams.
- Providing training for sales associates on project complexity and realistic timeline estimation.
- Introducing performance-based incentives that promote collaboration and efficiency rather than securing client commitments.
- Balancing workload distribution among designers to reduce burnout and improve project outcomes.

By addressing these gaps, Corrugrafix can achieve smoother project workflows, enhance job satisfaction, and strengthen customer relationships, ultimately driving greater efficiency and revenue growth.

Risk Factors for Performance Improvement Efforts

The following is an assessment of potential risks associated with implementing interventions to close the performance gap at Corrugrafix.

Risk Factor	Risk Level	Description	Assessment	Mitigation Strategy
Strength of leadership support	Medium	Leadership recognizes workflow inefficiencies, but there may be hesitation to implement new processes or technology due to concerns regarding costs and potential disruptions to workflow.	Leadership wants to improve performance, but support might depend on presenting a clear cost-benefit analysis and proof that operations would not be significantly affected.	Provide cost-benefit analysis and assess long-term advantages.
Strength of employee support	Medium to High	Employees may resist new project management systems	Employees want improved workflow efficiency; however,	Engage employees early in discussions and demonstrate how

		or workflow changes if they perceive them as complicating their roles. Designers may question whether workload distribution will improve based on past experiences.	resistance to change and skepticism about management's commitment may delay adoption.	changes will reduce workload stress.
Variety of locations	No risk	Corrugafix operates from a single location, simplifying the implementation of interventions.	All teams are in the same location, so there is no risk of inconsistent adoption due to multiple locations.	Not a concern.
Variety of departments	Medium	Changes impact sales, design, and production teams, each having distinct priorities and workflows.	Expectations are misaligned. Sales aims to close deals quickly, while design prioritizes quality and feasibility, and production emphasizes efficiency and meeting deadlines.	Cross-department meetings to ensure that all teams align in understanding the workflow changes.
Barriers to implementation	High	The lack of a formal project management system and structured workload distribution indicates that a cultural shift is necessary. Sales associates and designers are used to the current processes, and without comprehensive training and clear expectations, they may continue following outdated methods.	The main barrier is behavioral resistance to change. Without adequate training and evident benefits, implementation could be problematic.	Implement gradual, practical training, and change management strategies.
Ability to support technologically	Medium	The project management system and designer availability dashboard require an investment in software and training.	The existing infrastructure can support these tools, but ensuring full adoption and seamless integration into daily workflows may be challenging.	Select intuitive tools and offer continuous tech support.
Ability to support logistically	Medium	Implementation will require changes in workflow documentation, team collaboration, and	The company can logistically support these changes, but coordination among teams will be	Use pilot projects for testing before full implementation to refine the process.

		system updates, which could lead to temporary delays and reductions in productivity during the transition.	essential to avoid project disruptions.	
Ability to support financially	Medium to High	Investing in technology, training, and incentives requires financial resources that leadership may hesitate to allocate upfront. Also, increasing junior designer salaries or introducing incentives may not be financially feasible.	If leadership sees a clear return on investment, financial backing may be available, but without strong justification, budget constraints may limit implementation.	Present Return on Investment analysis and start with low-cost solutions.
Availability of sufficient time	High	Employees are already managing full workloads, making it complex to find time for training, process adaptation, and change management.	If workflow improvements are not gradually implemented, the lack of time for training and adaptation could prevent proper implementation.	Gradual implementation and training to reduce workload disruptions.

Project Constraints

Must-Meet Deadline

There is no defined deadline, but the project needs to be implemented soon to prevent ongoing inefficiencies from affecting the company's long-term performance and resources. Delays in execution could impact budget allocations and resource availability.

Not-to-Exceed Budget

The project must adhere to a set budget that has not been defined, which limits technological investments, training sessions, and hiring additional staff. Cost-effective solutions should be prioritized.

Must-Include Staff

Key departments involved in implementation include sales, design, production, and IT support for system integration. To be successful, employees must participate.

Corporate Culture and Project History

Employees have resisted previous workflow changes due to their preference for informal processes.

Part 3. Requirements

Business Objective

Corrugafix will increase revenue by ensuring projects are completed on time and meet customer expectations. This will be achieved by improving project scheduling, optimizing workload distribution, and improving communication between sales, design, and production teams. As a result, the company will deliver high-quality displays within the promised deadlines, leading to greater customer satisfaction, repeat business, and expanded sales opportunities.

Competencies to Be Addressed

The competencies below align with the key tasks in ideal performance to ensure efficient project execution, improved communication, and on-time project completion.

Task	Performer	Competency	Output	Performance Indicator
Project scheduling & timeline estimation	Sales associates	Use project details and designer workload data to estimate the project timelines.	Clear and realistic project deadlines communicated to clients.	The percentage of projects completed on time without requiring expedited production or overtime.
Workload management and designer assignment	Sales associates and design team leader	Assign projects according to designers' expertise, availability, and the complexity of the project, using the designer availability dashboard.	Balanced workload distribution across the design team.	Reduced overload for designers and improved on-time project completion rates.
Workflow and process compliance	Sales, design, and production teams	Adhere to standardized workflow processes for project handoffs,	Projects progress seamlessly through sales, design, and	Reduced missed handoffs, incomplete requests, or last-

		approvals, and revisions.	production without delays.	minute adjustments.
Communication and collaboration across teams	All departments	Share accurate and complete project updates, revisions, and requirements among sales, design, and production teams.	An efficient information flow across teams.	Minimize back-and-forth clarifications, misunderstandings, and project delays.
Design and technical expertise	Industrial designers	Create display designs that are structurally stable and compliant with store requirements, following the provided specifications.	3D models, renders, and technical drawings that fulfill client requirements and pass prototype testing.	Increase in first-approval rates for designs and reduction in revisions caused by structural errors.
Prototype testing and production feasibility	Industrial designers and production team	Identify and address structural or assembly issues prior to production.	Prototypes that align with final production requirements.	Decrease in prototype failures and redesigns during production.
Graphic design coordination and artwork preparation	Graphic designers and industrial designers	Collaborate with clients and industrial designers to prepare print-ready graphics that fit display structures.	Print-ready artwork files that are correctly formatted and approved for production.	Reduction in artwork-related production delays or errors.
Client feedback and revision management	Sales associates and industrial designers	Process client feedback efficiently, ensuring clear communication and prompt adjustments.	Requested client changes are implemented within the expected timeframe for revisions.	Reduction in unnecessary revision cycles and delays in final approvals.

Performance Metrics

Individual Performance Metrics

Performance metrics for individuals will help identify skill gaps, workload distribution issues, and the need for further training or support.

- The percentage of projects that individuals complete within the assigned deadline.
- Number of revisions per project and reasons for revision.

- The number of tasks assigned and completion rates can indicate how tasks are distributed among designers and production teams.
- Average time to respond to client feedback and duration of approval processes.

Organizational Performance Metrics

Organizational performance metrics provide insights into workflow efficiency, team effectiveness, and client satisfaction. They can pinpoint bottlenecks in project flow and highlight areas for improvement in processes.

- Average time from initial client request to final product delivery.
- Percentage of projects approved on the first render without major revisions.
- Percentage of projects approved on the first prototype without major revisions.
- The ratio of successfully produced displays to reworked productions.
- Client feedback ratings on communication, quality, and delivery timelines.
- Turnover rate among industrial designers and production staff.

Additional Insights Provided by Performance Metrics

- The effectiveness of training programs.
- Need to hire new talent or reassign tasks.
- The amount of repeat business and revenue growth.

References

- About The Canadian Corrugated and Containerboard Association (CCCA)*. (n.d.). Retrieved February 9, 2025, from <https://cccabox.org/about-ccca/>
- Consumer Packaging and Labelling Regulations*. (n.d.). Government of Canada, Justice Laws Website. Retrieved February 9, 2025, from https://lois-laws.justice.gc.ca/eng/regulations/C.R.C.%2C_c._417/page-1.html?utm_source=chatgpt.com
- Corrugated Board Market Size, Share & Growth Report, 2030*. (n.d.). Retrieved February 9, 2025, from <https://www.grandviewresearch.com/industry-analysis/corrugated-board-market>
- How corrugated packaging is replacing plastic: A sustainable solution - Norlands*. (2024, November 15). Norlands. <https://norlands.com/how-corrugated-packaging-is-replacing-plastic-a-sustainable-solution/>
- OpenAI. (2024). *ChatGPT*. <https://chatgpt.com>
- Point 1 Displays – Présentoirs Point 1 – Innovative Display Designs & Store Fixturing | Creative Upscale Innovative*. (n.d.). Retrieved February 9, 2025, from <https://point1.ca/>
- Rummler, G. A., & Brach, A. P. (1991). Managing the White Space, Training. In *Managing the White Space* (1st ed., Vol. 28, pp. 61–67).
- Stolovitch, H. D., Keeps, E. J., & -, A. S. for T. and D. T. A.-T. T. (2006). *Beyond training ain't performance fieldbook : strategies, tools, and guidance for effective workplace performance* (NV-1 o). ASTD Press. <https://doi.org/LK> - <https://concordiauniversity.on.worldcat.org/oclc/243598620>
- The International Institute for Innovative Instruction. (2019, January 7). *The Behavior Engineering Model (BEM)*. <https://www.youtube.com/watch?v=pvabSdWaTrk>



High-Level Design

Client: Corrugafix

Table of Contents

<i>Learner Journey Map</i>	3
<i>Interventions</i>	5
Strategical and Incremental Implementation of Interventions	10
Interventions to Prioritize	11
Low-Cost, High-Value Interventions	11
<i>Consistency</i>	12
<i>Technological Challenges</i>	12
<i>References</i>	13



Learner Journey Map

A learner journey map visually illustrates the process of acquiring, applying, and maintaining skills, ensuring that interventions align with learners' needs and workplace realities. This is important because it helps us understand how proposed interventions will address performance gaps, improve workflows, and drive business outcomes.

The following learner journey map is based on Tracy's lesson for developing learner journey maps and Boller & Fletcher's e-book, "Design Thinking for Learning Professionals. "

The goal is to improve collaboration among designers, sales associates, and production teams to optimize project timelines, workload distribution, and client satisfaction.

Phase	Prepare		Acquire Knowledge & Skill	Build Memory & Try Using on the Job		Maintain Use Over Time
Step	Notice	Commit	Learn & Practice	Repeat & Elaborate	Reflect & Explore	Sustain Over Long-term
Interventions	- Team reflection meetings - Workflow communication maps - Performance dashboards	- Hands-on training on the PMS with EPSS support - Integrated communication platform - Designer availability & expertise dashboard - Project timeline and timeframe estimation training - Case study discussions on project assignment	- Coaching for designers - Pre-designed templates - Smart feedback loops	Biweekly live project review meetings	- Quarterly performance check-ins - Managerial dashboards - Recognition communications - Peer-nominated awards	- Onboarding program for new employees - Annual refresher meeting on best practices

Feelings	Sales associates are skeptical but curious about new processes. Designers are frustrated with last-minute revisions and unclear expectations. The production team is overwhelmed by frequent project changes, causing delays.	Sales associates are excited about the availability of information but concerned about adapting to new tools. Designers are optimistic that structured planning will minimize last-minute stress. The production team is relieved that they will gain better visibility into incoming projects.	Sales associates have an increased confidence in setting realistic project deadlines. Designers are less overwhelmed by knowing project expectations upfront. The production team appreciates structured handoff processes from design to manufacturing.	Sales associates are more confident when communicating and with project timelines. Designers are relieved as projects move smoothly from sales to production. The production team is less stressed with early visibility into project timelines.	Increased confidence in workflow enhancements. Pride in improved performance metrics and team collaboration.	Confidence in sustaining enhanced processes over time. Commitment to continuous learning and adaptation.
Desired Outcomes	Recognize existing inefficiencies and the need for structured workflows. Achieve alignment on common workflow improvements.	Commitment to structured workflow tools for project estimation and communication. Sales associates utilize visualization tools to assign projects.	Minimize last-minute revisions by enhancing communication. Boost efficiency with feedback loops and standardized templates.	Strengthen team collaboration through structured feedback and knowledge-sharing. Minimize last-minute design changes by identifying potential issues early on.	Continued refinement of team collaboration and efficiency. Increased alignment between project planning and execution.	Long-term behavioral change that ensures consistency at a high level performance.
Magical Moments	Visualizing clear data on inefficiencies that validate team frustrations. Leadership actively supports the process improvements.	Seeing automation supports decision-making. Recognizing the value of structured project planning in meeting deadlines.	Sales associates confidently set deadlines based on designer availability. There are fewer design revisions due to improved initial project planning.	The first project is completed with no delays or miscommunication. Clients provide positive feedback on improved communication.	Recognizing tangible improvements in workload balance and project success rates. Feeling valued through peer recognition and management acknowledgment.	Observing the lasting impact of improved project execution on business success.
Miserable Moments	Resistance to change from some team members. Concerns that new processes may add more work instead of streamlining tasks.	The initial learning curve with new tools and processes. Concerns that workflow structure may slow down decision-making.	Some team members struggle to adopt structured processes. Slow client responses delay approvals.	Delays still occur due to external client or supplier factors.	Some employees go back to old habits without continuous reinforcement.	If training becomes outdated or does not adapt to the evolving business needs.

(Tracy, n.d.)(Boller & Fletcher, n.d.)(Stefaniak, 2018)(Sanders & -, 2001)

Interventions

Intervention	1. Team reflection meetings	2. Workflow communication maps	3. Performance dashboards	4. Hands-on training on the PMS with EPSS support	5. Integrated communication platform	6. Designer availability & expertise dashboard
Description	A structured discussion in which employees reflect on workflow inefficiencies and discuss the performance campaign objectives.	A step-by-step guide illustrating best practices for communication among sales associates, designers, and production teams throughout the workflow to ensure smooth project execution.	Visual representation of project trends, inefficiencies, and workload distribution.	Practical training on the Project Management System (PMS) with an embedded Performance Support System (EPSS) that provides real-time, in-app assistance, offering employees step-by-step guidance.	A centralized platform for real-time collaboration among sales, design, and production teams, including tracking client feedback.	A digital visualization tool that displays designer availability and expertise, allowing sales associates to make informed project assignment decisions.
Learning Step	Notice	Notice	Notice	Commit	Commit	Commit
Competences Addressed	Problem identification, critical thinking, and team collaboration	Process understanding, project management, and communication	Data literacy and workflow management	Software proficiency	Collaboration, communication, and project tracking	Decision-making, resource management and workload balancing
Type of Intervention	Non-instructional, motivational	Non-instructional, learning resource	Non-instructional, learning resource	Instructional	Non-instructional, resource	Non-instructional, resource
Performers Targeted	All	Sales associates and designers	All	All	All	Sales associates
Genre	Facilitated discussion: Engages employees in identifying issues and fosters commitment to workflow improvements.	Visual guide, flowchart: Provides a quick reference for the process and guidance for communication.	Digital dashboard: Offers timely, actionable insights.	Interactive, system walkthrough: Ensures familiarity with workflow tools and offers timely assistance, minimizing disruptions in workflow.	Digital collaboration tool: Ensures that all project communication and client feedback are centralized for easy access.	Digital dashboard integrated into the PMS: Integrating the dashboard into the PMS enables access to real-time insights on designer availability and expertise without switching platforms, which improves efficiency and ensures informed project assignments.
Information Expectations	Insights on inefficiencies, team concerns, and expected changes	Process flow, key steps and communications	Performance metrics and workload distribution	System navigation and troubleshooting support	Project updates, client approvals, and real-time feedback	Designer workload, skill alignment, project compatibility, and availability status

Structure Expectations	Open discussion with guided prompts	Logical and sequential	Data-driven and visual	Contextual, step-by-step, interactive modules integrated within the PMS	Interactive threaded discussions and file sharing	A dashboard interface with designer availability, experience filtering, and workload distribution
Writing Style Expectations	Reflective and conversational	Concise and action-oriented	Minimal text and numerical representation	Clear and direct	Clear and concise	Clear, concise, and data-driven
Other Expectations	Chance to express concerns and collaborate	Accessible, straightforward and clear	Updated regularly with intuitive navigation	Immediate access to system guidance without changing platform	Safe, intuitive, and seamlessly integrated with existing tools	Real-time data updates and integration with PMS
Communication Medium	In-person: Encourages interaction and engagement.	Digital and print: Ideal for a convenient reference.	Display screens and online reports: It is accessible and easily updated.	PMS interface featuring integrated EPSS tooltips, guided pop-ups, and interactive walkthroughs: Enhances workflow efficiency, decreases training time, and lowers dependence on external documentation.	Online platform integrated to Project Management System: Reduces email overload and miscommunication.	Integrated PMS dashboard with filtering options, and selection features: enhances visibility into the designer's workload, prevents scheduling conflicts, and allows for informed project assignments.
Advantages	Immediate feedback and fosters alignment	Reduces confusion, easy to follow	Provides up-to-date data and promotes accountability	Just-in-time learning, highly contextualized training, reduced human error, and expedited onboarding	Improves response time and maintains a history of discussions	Reduces workload imbalances, prevents overloading designers and improves project success rates
Limitations	Requires a time commitment and organized facilitation	May require updates as workflows evolve	Requires system integration and maintenance	Requires regular updates to reflect system changes	Challenges arising during the introduction and potential resistance to change	Requires regular system updates to reflect staffing changes

Intervention	7. Project timeline and timeframe estimation training	8. Case study discussions on project assignment	9. Coaching for designers	10. Pre-designed templates	11. Smart feedback loops	12. Biweekly live project review meetings
Description	Training program designed to equip sales team members to estimate informed project timeframes, review timelines, and communicate effectively with designers and clients.	A guided discussion where sales associates compare designer project assignments using the designer availability and expertise dashboard, as opposed to the previous assignment method.	A monthly coaching program where designers participate in small group discussions with the design lead to optimize workflows, enhance processes, and refine best practices.	Pre-designed templates integrated into the PMS standardize client design briefs and communications. This increases the likelihood that all necessary details are included from the start.	A feedback tracking system integrated into the PMS allows teams to document, review, and respond to feedback. The system requests client feedback via notifications, shares relevant files for review, and alerts users when feedback is received.	A biweekly project review meeting for sales associates, designers, and production teams to analyze recent projects, discuss challenges, and identify areas for improvement.
Learning Step	Commit	Commit	Learn & Practice	Learn & Practice	Learn & Practice	Repeat & Elaborate
Competences Addressed	Project management, time estimation, resource allocation, and communication	Decision-making	Workflow optimization, problem-solving, collaboration, and communication	Process efficiency, standardization, and clear communication	Workflow optimization and communication	Collaboration, problem-solving, and optimizing workflows
Type of Intervention	Instructional	Instructional	Instructional	Non-instructional, resource	Non-instructional, resource	Non-instructional, motivational
Performers Targeted	Sales associates	Sales associates	Industrial and graphic designers	All	All	All
Genre	Hybrid training program: self-study and live courses ensure that fundamental concepts and processes are learned first, followed by engagement with the content in a collaborative, hands-on environment.	Case study discussion: Promotes reflection on decision-making and tool usage.	Monthly scheduled small group coaching sessions: provide regular mentorship.	Digital and printable templates available through the PMS: these templates help ensure consistent and complete project documentation while enhancing workflow efficiency.	Digital feedback tracking system integrated into the PMS: automate the collection of client feedback, ensure structured documentation, and streamline the processes for approval.	Live project review meetings: held every two weeks to facilitate structured discussions about completed and ongoing projects, share challenges and improvements, and align team goals.
Information Expectations	Project timelines, their use, practice estimating project timeframes, and communication with the design team and clients	Best practices and lessons learned	Best practices for improving design workflows, feedback, and reflection on existing design challenges	Project request forms, design brief templates, and client communication templates.	Revision requests and approvals, organized feedback logs by date, real-time status updates, and client approval history	Project status updates, challenges, proposed solutions, and actionable takeaways to improve future projects

Structure Expectations	For self-study: video tutorials and short units. For live sessions: practical exercises, group discussions, and evaluations	Scenario-based discussion	Address immediate workflow challenges, feedback, and reflection for refinement	Templates include predefined fields to ensure users enter all required project details, and common requests are available as preset options	Automated feedback tracking, file sharing, and dated records	Review key projects, discuss challenges, contribute insights, and outline actionable steps for process enhancement
Writing Style Expectations	Clear language, structured content, and supportive feedback	Analytical and reflective	Conversational, constructive and actionable	Clear, organized, and concise	Concise, clear, actionable, and professional	Focused, constructive and actionable
Other Expectations	The instructor is available to answer questions and provide feedback	Constructive debate	Offer key takeaways that can be immediately applied to projects	Templates in the PMS are easily accessible, with some customization options available.	Limited manual input	Inclusive discussions and follow-up documentation summarizing key takeaways
Communication Medium	Flipped learning model: flexible online tutorials for knowledge-based content, followed by live, face-to-face training to reinforce learning through in-person interactions.	In-person discussions: encourage interaction and collaboration.	Face-to-face discussions for deeper engagement and virtual coaching sessions for remote teams members.	PMS template library: provides easy integrated access to downloadable templates and preset options.	PMS dashboard for tracking feedback: improve feedback visibility, ensure accountability for all revisions, and reduce manual follow-ups.	Virtual meetings: Ensure everyone can participate, enhance collaboration between teams, and prevent ongoing inefficiencies.
Advantages	Flexible, promotes real-world application and teamwork	Fosters team alignment and encourages critical thinking	Regular and structured mentorship fosters continuous improvement and enhances efficiency	Save time and ensure completeness of project details	Streamline revision tracking and prevent missed feedback	Reduces misalignment between teams and improves future project planning and efficiency
Limitations	It requires engagement in both self-study and live components	Requires active participation	Depends on design lead availability and requires designers' active engagement	Requires regular updates, and users may need guidance in selecting the appropriate template	Requires team adoption, regular system updates, and clients may need guidance on how to respond to automated feedback	It can be time-consuming if not structured, and ensuring the follow-through of required actions is important

Intervention	13. Quarterly performance check-ins	14. Managerial dashboards	15. Recognition communications	16. Peer-nominated awards	17. Onboarding program for new employees	18. Annual refresher meeting on best practices
Description	Scheduled quarterly reviews during which employees reflect on their progress and receive feedback.	An automated dashboard integrated into the PMS enables leadership to track key project success metrics and workload distribution, providing data-driven insights for informed decision-making.	A structured recognition system that acknowledges outstanding contributions, highlights key achievements, and reinforces a culture of excellence and collaboration.	A peer-driven recognition program where employees nominate colleagues for collaboration and exceptional contributions. The awards are presented at the end-of-year dinner.	An onboarding program that helps new employees integrate smoothly into the organization by providing essential company knowledge, role-specific training, and key insights and tools.	An annual refresher meeting provides employees with a forum to reflect on lessons learned, discuss new strategies, and align on updated processes to enhance overall performance and collaboration.
Learning Step	Reflect & explore	Reflect & explore	Reflect & explore	Reflect & explore	Sustain over long-term	Sustain over long-term
Competences Addressed	Performance evaluation, continuous improvement, and goal setting	Decision-making based on real-time project metrics	Motivation and engagement	Workplace culture and motivation	Role-specific knowledge, workflow navigation, and collaboration	Continuous learning, process improvement, and adaptability
Type of Intervention	Non-instructional, motivational	Non-instructional, resource	Non-instructional, motivational	Non-instructional, motivational	Instructional	Non-instructional, motivational
Performers Targeted	All	Leadership	All	All	All	All
Genre	Structured feedback sessions: ensure continuous development and accountability.	Digital dashboard: Provides real-time insights into project success metrics and encourages data-driven decision-making for resource allocation and enhancements in workflow.	Monthly recognition message emails: Reinforce positive behaviors and contributions, while encouraging acknowledgment from peers and leadership to foster a motivational work environment.	Annual recognition event featuring peer-nominated awards: Promotes peer-to-peer acknowledgment, strengthening a positive team culture.	Hybrid onboarding program featuring online modules and live training: Ensures consistent training and role alignment, promotes early engagement with teams, and provides practical resources.	Annual live meeting: Keeps teams informed about new tools and workflows, ensuring ongoing alignment with industry best practices and internal process enhancements.
Information Expectations	Personalized feedback and progress tracking	Project completion rates, revision frequency, approval turnaround times, client satisfaction scores, and workload distribution	Team and individual achievements, along with encouraging messages from leadership and peers	Nominations, justification statements from employees, and recognition messages from leadership and peers	Company mission, values, and structure; key roles and team responsibilities; an overview of essential workflows, and tools training	Review of challenges, key process updates, workflow improvements, new tools introduced over the year, and team feedback
Structure Expectations	Goal-oriented in a performance review format	A customizable dashboard showcasing key performance indicators (KPIs) and visualization elements	Concise messages that highlight key achievements, impact, and company-wide participation	Nomination period, selection process for reviewing nominations, and awards presentation	Self-paced online training, live mentorship sessions, checkpoints, and progress feedback	Organizational updates, team presentations, discussions on role-specific best practices, and future alignment

Writing Style Expectations	Constructive and professional	Concise and data-focused	Concise, appreciative, and positive	Appreciative, clear, and motivational	Clear, structured, and easy to follow	Concise, engaging, and informative
Other Expectations	Opportunity to adjust goals and receive guidance	Seamless integration of PMS, featuring filters and customizations to adjust metrics	Transparent selection process involving peer participation	Fair and transparent nomination process with a variety of award categories to include diverse contributions	Accessible onboarding resources and opportunities to ask questions and receive feedback	Opportunities for team discussions and involvement
Communication Medium	In-person or virtual review sessions provide a flexible format and promote continuous feedback and improvement.	Integrated PMS dashboard: Provides leadership with continuous oversight of project progress and team performance, enabling proactive decision-making.	Internal emails featuring monthly highlights: provide consistent and visible acknowledgment of employee contributions and foster a positive work culture.	Internal emails and announcements for nomination calls, verbal recognition, and award presentations at the event: ensure employee-driven recognition.	Self-paced onboarding modules, live mentorship for hands-on learning, and email support for questions: to provide a structured yet flexible onboarding experience.	Live virtual meeting with notes and follow-up documentation in the PMS: everyone can join, provides a dedicated time for learning, and helps teams realign for the upcoming year.
Advantages	Foster employee engagement and alignment with company goals and values	Facilitates strategic planning and continuous improvement	Enhances employee engagement while aiding talent retention by acknowledging efforts	Enhances the workplace culture while fostering appreciation and collaboration across the teams	Minimizes the time to productivity for new hires and ensures consistent training across teams	Reinforces best practices and continuous learning, ensuring alignment across all teams
Limitations	Requires commitment from both employees and managers	Requires consistent data entry and system maintenance, and customization may require IT support.	Must be consistently maintained, may require adjustments based on employee feedback, and must ensure fairness and transparency.	Requires structured planning	Periodic updates may be required to reflect workflow changes	Full participation and follow-through on actions are required for effectiveness

(Performance Support Systems: Overview, Best Tools, Tips , 2024)(Birdview, n.d.)(OpenAI, 2024)

Strategical and Incremental Implementation of Interventions

All interventions contribute to the holistic enhancement of workflow efficiency, collaboration, and employee engagement at different stages of the performance improvement campaign. However, an incremental approach guarantees sustainable changes for gradual adoption, flexible budgeting, and measurable results. Below are recommendations for prioritizing high-impact interventions and low-cost interventions that provide high value.

Interventions to Prioritize

- Hands-on training on the project management system (PMS), supported by the embedded performance support system (EPSS), ensures immediate system adoption and prevents workflow disruptions.
- The PMS should integrate the designer availability and expertise dashboard, performance dashboards, and smart feedback loops.
- Workflow communication maps provide a clear process guide, reducing confusion and misalignment.
- An integrated communication platform connected to the PMS to streamline interactions among sales, design, and production teams.
- Training on project timelines and timeframe estimation enables sales team members to accurately estimate informed project timeframes, review timelines, and communicate with designers and clients.
- Quarterly performance check-ins maintain employee engagement by providing ongoing feedback and encouraging growth.
- The onboarding program for new employees smoothly integrates them into workflows.

Low-Cost, High-Value Interventions

- Team reflection meetings require minimal financial investment and enhance communication and alignment.
- Recognition communications are a simple monthly emails or messages that highlight employee contributions.
- Peer-nominated awards take place during the year-end event, leveraging existing company gatherings.
- Coaching for designers is a mentorship approach that does not require significant financial investment.
- The annual refresher meeting on best practices can be incorporated into existing team meetings at a minimal cost.

Consistency

Type of consistency	Why it's needed?	How might you achieve this type of consistency?
Visual consistency	Creates a professional and recognizable identity across materials, enhances user experience, reduces distractions, and ensures credibility.	Refer to the style guide in the design system for a consistent color palette, typography, and logo placement across all materials. Ensure uniformity in image styles and quality.
Layout	Allows users to easily locate information and navigate documents or interfaces without confusion, thereby reducing cognitive load.	Refer to the design system to ensure consistent margins, spacing, font sizes, and section positioning in all materials.
Navigation	Helps users quickly locate tools and resources, minimizing frustration and mistakes.	Standardize the placement of menus, buttons, and key navigation elements within the PMS and training interfaces using the design system
Headings	Provides clear organization and readability, facilitating users' ability to scan and find relevant information.	Use hierarchical heading structures. Ensure that terminology is aligned across all documents and interfaces.
Lists	Consistent lists improve scannability and comprehension.	Maintain a consistent format for lists based on their purpose and ensure a parallel grammatical structure.
Terminology	Increases clarity and efficiency while preventing confusion from different terms.	Standardize terminology throughout training materials, documents, dashboards, and communication resources.
Concepts	Ensures employees consistently understand core concepts.	Ensure that instructional materials, job aids, and performance tools align with the same core concepts.
Tone and Writing Style	Maintains credibility and fosters engagement in all communication.	Maintain a consistent writing tone that is professional while remaining approachable.

(Krause, 2021)(Farkas, 1986)(Pernice, n.d.)

Technological Challenges

- Enhancements in hardware, software, and network capabilities may be necessary for project management system integrations.
- Authoring tools must align with the Corrugrafix learning management system.
- Standardizing development across systems.
- Ensuring data security, cybersecurity, and compliance with security regulations.

References

- Birdview. (n.d.). *Resource Management Reporting and Dashboards in Project Management*. Retrieved March 12, 2025, from <https://birdviewpsa.com/resource-management-guide/resource-management-reporting-and-dashboards/>
- Boller, S., & Fletcher, L. (n.d.). *Design Thinking for Learning Professionals*. Retrieved March 3, 2025, from www.bottomlineperformance.com
- Farkas, D. K. (1986). *THE CONCEPT OF CONSISTENCY IN WRITING AND EDITING*. 15(4), 353–364.
- Krause, R. (2021, January 10). *Maintain Consistency and Adhere to Standards (Usability Heuristic #4)*. NN Group. <https://www.nngroup.com/articles/consistency-and-standards/>
- OpenAI. (2024). *ChatGPT*. <https://chatgpt.com>
- Performance Support Systems: Overview, Best Tools, Tips*. (2024). Whatfix. <https://whatfix.com/performance-support-system/>
- Pernice, K. (n.d.). *Design Systems and Their Benefits (Video)*. Retrieved March 9, 2025, from <https://www.nngroup.com/videos/design-systems/>
- Sanders, E. S., & - , A. S. for T. and D. T. A.-T. T. (2001). *Performance intervention maps : 39 strategies for solving your organization's problems* (NV-1 o). American Society for Training & Development. <https://doi.org/LK> - <https://concordiauniversity.on.worldcat.org/oclc/64549955>
- Stefaniak, J. E. (2018). Performance Technology. *Performance Technology*, 345–359. https://edtechbooks.org/lidtfoundations/performance_technology
- Tracy, J. (n.d.). *Develop a learner journey map*. LXD Factory. Retrieved March 3, 2025, from file:///Users/Lucia/Documents/Concordia University/Human Performance Technologies/High Level Design/References/Develop a learner journey map.html

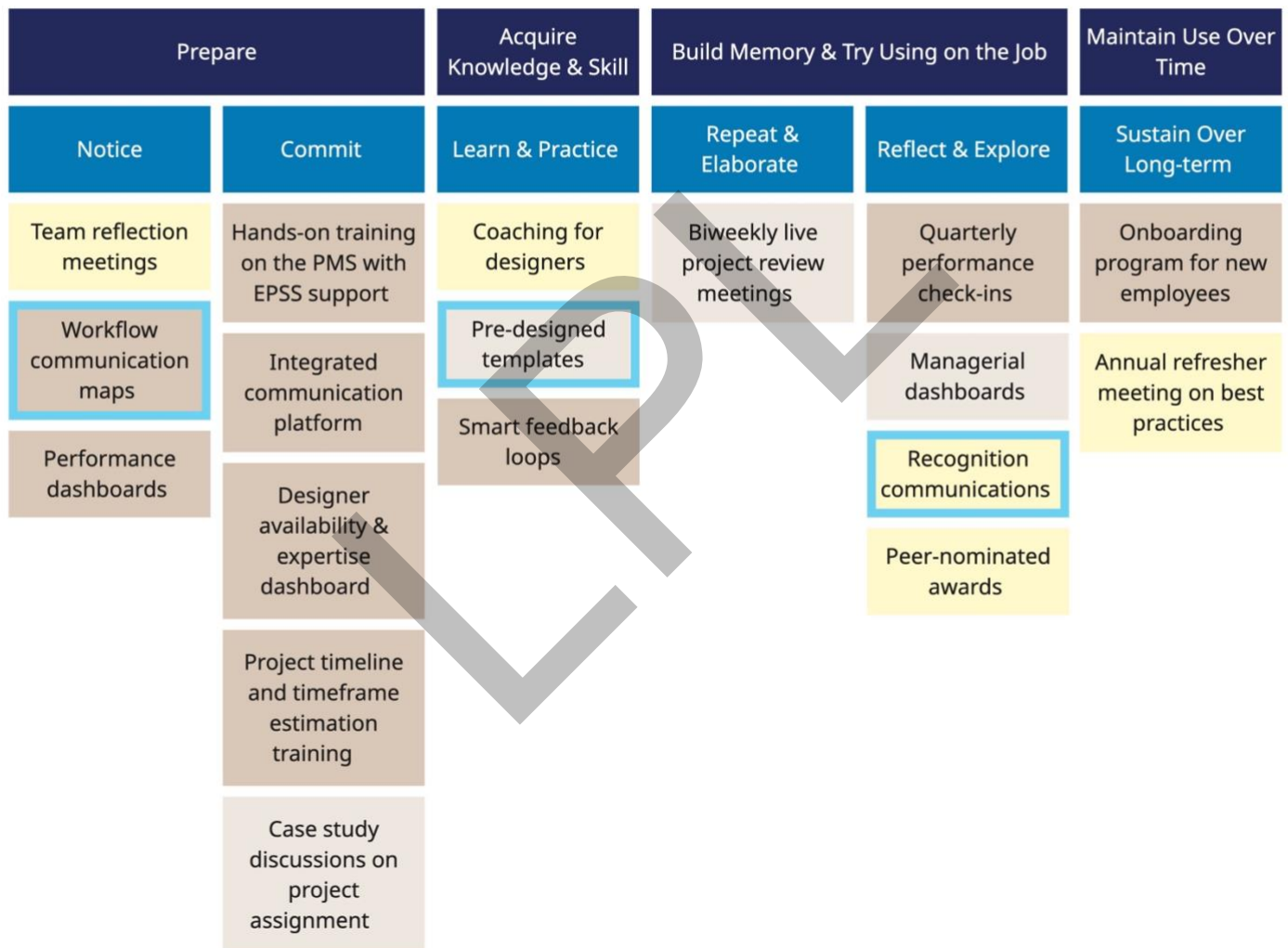


Detailed Design

Client: Corrugrafix

<i>Intervention Map.....</i>	<i>3</i>
<i>Workflow Communications</i>	<i>4</i>
Communication Best Practices	4
Communication in a Designer’s Workflow	5
Communication in a Sales Workflow	7
Intervention Evaluation.....	9
<i>Recognition Communications</i>	<i>11</i>
Nomination Form	12
Leadership Evaluation Rubric	13
Recognition Email Template	14
Intervention Evaluation.....	15
<i>Client Design Brief</i>	<i>17</i>
Intervention Evaluation.....	20
<i>Summative Evaluation</i>	<i>22</i>
<i>References.....</i>	<i>24</i>

Intervention Map



Workflow Communications

Communication Best Practices

Information to include in communications:

- The Project ID and client.
- The reason for the message and the expected action or reply.
- The project stage, current status, and any upcoming deadlines.
- Relevant files, version numbers, or links to the PMS/client portal items.

Tone and language

- Professional, courteous, and collaborative.
- Avoid using jargon unless you are certain the recipient understands it.
- Use clear and direct language, with lengthy messages divided into bullet points.

Additional considerations:

- Acknowledge receipt of critical files or decisions.
- When decisions on a project are made, log approvals, rejections, or scope changes in the PMS so everyone is up to date on the changes.

Preferred mediums of communication:

- Use the PMS's built-in messaging for internal communications for version tracking and internal documentation.
- Communicate with clients via the client portal for renders, approvals, and feedback.
- Use email for formal summaries or when system access is unavailable.

Best practices when communicating with clients:

- Personalize greetings with a polite and informative tone.
- Summarize progress and outline the next steps in simple language.
- Use visuals like renders and photos to explain design elements clearly.
- Confirm they have received files and clarify feedback timelines.
- Reassure the client that feedback is welcome and will be handled promptly.
- End communications with your name, role, and contact information.

Communication Fallback

Follow this protocol when responses or actions are delayed, unclear, or absent.

Delayed Internal Communications

1. After one business day, follow up using the PMS communication platform.
2. If urgent or after two business days, use a secondary channel like email, call, or in-person conversation.
3. Get in touch with a team leader if communication remains challenging or if deadlines are in jeopardy.

Delayed Client Communications

1. If a reply is not received after two business days of sending a file, proposal, or question, follow up via email. Emphasize how their input impacts project timing.
2. After two attempts, if there is no response, call to confirm they have received the email and understand the next steps.

Document all communication attempts in the PMS for clarity and traceability. (OpenAI, 2024)

Communication in a Designer's Workflow

1. Take on a New Assignment

Communication Medium: Project Management System (PMS)

1. Review the client's brief.
2. Verify that all required information is present before proceeding.
3. Ensure that an appropriate project number and client are assigned.

If the brief is incomplete or the project number is missing. Inform the sales associate and ask if any information is still pending.

2. Review Project Details

Tools: PMS, Design Archive, and Store Display Guidelines

1. Review the client request forms, client brief, and supporting materials.
2. Refer to previous projects for a similar look, structure, or function.
3. Review display regulations for store compatibility.

If modifying an existing design, retrieve and use past CAD files.

3. Initial Design and Render

Communication Medium: PMS

Tools: CAD Software

1. Use clear version naming using dates. (project#_client_YYYYMMDD_version#)
(ex.1469_takis_20250406_01)
2. Focus on the design concept and visual representation, as technical precision can be addressed later.
3. Use any available artwork or placeholders.
4. Upload the model and render it to the PMS, including the project number, client name, purpose of sharing, and highlight relevant details.

Only upload versions for revision in the PMS to prevent clutter.

4. Client Review and Feedback

Communication Medium: PMS and Client Portal

1. Confirm the client feedback deadline with the sales associate.
2. Make sure all feedback is clear; if it isn't, reach out to the client before making revisions.

Maintain organized and traceable file versions.

5. Revision Cycles

Communication Medium: PMS

1. Re-upload revised versions with appropriate versioning.
2. Clearly describe changes in the PMS notes.
3. Inform sales associates when new renders are available.

6. Prototyping

Communication Medium: PMS

Tools: CAD software, cutting machine, and camera.

1. Ensure the prototype's structural integrity and ease of assembly.
2. Notify the sales associate if any concerns or potential delays are discovered.
3. Address any issues.
4. Upload photos of the completed prototype to PMS.
5. Check with sales associates whether the prototype needs to be mailed to clients.

7. Artwork Application

Communication Medium: PMS

Tools: CAD software, printer, and camera.

1. Upload the final graphic templates for the client or graphic designer in SVG format.
2. Notify the sales associate and graphic designer that the graphic templates are now available.
3. Coordinate with the graphic designer to print the artwork.
4. Capture a photograph of the prototype featuring the artwork.
5. Upload the photo to the PMS.

8. Final Client Approval and Production-Ready Files

Communication Medium: PMS and Client Portal

1. Obtain client approval for the final prototype featuring the artwork.
2. Upload the final production-ready files.
3. Ensure that they are labeled as production-ready files and that they are the correct files.
4. Notify the sales associate and production team that the files have been uploaded.

9. Monitor Production

Communication Medium: PMS and in-person

1. Address production concerns quickly.
2. Resolve errors in files or material selections promptly.

10. Project Wrap-Up

Communication Medium: PMS and in-person meeting

Tools: Design Archive

1. Archive the final files for future reference.
2. Reflect on the project, noting challenges, delays, and areas of opportunity.
3. Include some bullet points from the reflection in the PMS.
4. Attend the debriefing meeting.

Communication in a Sales Workflow

1. Receiving and Processing Client Requests

Communication Medium: Digital Request Form, Email, and Project Management System (PMS)

1. Review the request for product type, dimensions, placement, deadlines, and artwork.
2. If any information is missing, follow up promptly.
3. Revise the project requirements and complete the client brief.
4. Assign project number
5. Upload project brief with project number and client to the PMS.

2. Assigning the Project to a Designer

Tools: PMS Designer Dashboard

1. Assess the designer's workload and expertise in the designer dashboard.
2. For intricate projects, consult the design team leader.
3. Assign the project and verify that the designer has received it.

Include timeline expectations in assignment notes.

3. Tracking Design Progress

Communication Medium: PMS and email

1. Coordinate with designers to establish timeline expectations and avoid pressuring them.
2. Monitor updates in the PMS and request check-ins with the designer if anything is unclear.

Notify the client only when the render is ready or if delays are expected. Avoid speculative timelines.

4. Sharing Renders with Clients

Communication Medium: PMS and Client Portal

1. Review the render before sending it to ensure it aligns with the request.
2. Reach out to the designer for clarification if needed.
3. Summarize what the client sees and mention any specific input required from the feedback.
4. Establish a timeline for feedback and provide specific dates.

Include the version number and any relevant visual support when sharing the render.

5. Handling Client Feedback

Communication Medium: PMS, client portal, email, or phone.

1. Review the feedback provided by the client.
2. If unclear, call or email the client for clarification.
3. Summarize the confirmed feedback in bullet points.
4. Document feedback in the PMS, specifying the date received and the version.

6. Tracking Revisions and Client Approvals

Communication Mediums: PMS, client portal, and email

1. Proactively communicate any delays or challenges in revisions.
2. Ensure revisions are completed.
3. Remind clients to submit feedback on time.
4. Verify the next steps with both the client and designer.

7. Share Prototype with Client

Communication Medium: Client Portal

1. Share photos of the prototype or arrange for delivery if clients wish to see the prototype in person.
2. Confirm with the client whether the prototype includes artwork.
3. Establish a timeline for feedback and provide specific dates.

8. Coordinating Artwork

Communication Medium: PMS and Client Portal

1. Send clients the final SVG graphic template files if they provide the artwork.
2. Notify designers when client-provided artwork becomes available.
3. Share the photo of the prototype that features the artwork with the client.
4. Establish a timeline for approval or feedback.
5. Receive approval of the final prototype with artwork or obtain feedback for revision before production.
6. Share feedback with the graphic and industrial designer if a revision is necessary.

9. Final Client Approval and Production Handoff

Communication Medium: PMS, Client Portal, and email

1. Notify the industrial and graphic designer about the client's approval.
2. Verify that the production-ready files have been uploaded to the PMS by the industrial designer.
3. Coordinate a delivery timeline with the production team.
4. Inform the client that the project is in production and set a delivery date and plan.
5. Check-in with the production team regarding the project status and delivery.

Notify the client only when the displays are ready or if delays are expected. Avoid providing speculative timelines.

10. Project Wrap-Up

Communication Mediums: PMS, client portal, email, and in-person meeting

1. Confirm the delivery with the client.
2. Follow up with the client for their feedback.
3. Reflect on the project, noting challenges, delays, and areas of opportunity.
4. Include some bullet points from the reflection in the PMS.
5. Attend the debriefing meeting.

Intervention Evaluation

Evaluation of the Tool

Technical Review

Purpose:

Ensure the workflow communication job aid's accuracy, logic, and integration with Corrugafix's actual processes, PMS, and terminology.

Timing:

After the first draft of the job aids is complete and prior to usability testing.

Participants:

Industrial designer, graphic designer, sales associate, and IT or PMS administrator.

Guidelines:

- Adhere to the consistency guidelines on page 12 of the High-Level Design.
- Verify the accuracy of the process flow with actual operations.
- Validate terminology, symbols, and communication points.

Procedures and Instruments:

- Give reviewers access to the job aid in digital format.
- Use a checklist to note all aspects to evaluate.
- Utilize a digital tool that enables annotated feedback.

Usability Testing

Purpose:

Ensure maps are user-friendly, minimize confusion, and enhance task performance in realistic conditions.

Timing:

Late drafts before rollout for pilot test.

Participants:

Three designers, three sales associates, and an ID facilitator serving as an observer.

Guidelines:

- Each user must fulfill realistic tasks.
- Evaluate whether users rely on the map or bypass it.
- Identify any misinterpretations, cognitive load, and barriers in the workflow.

Procedures:

- Moderated testing in actual or simulated work environments.
- Document feedback.
- Conduct post-task interviews.

Instruments:

- Scenario task script
- Usability Issue Log
- Post-test interview questions

Formative Evaluation of Performance Improvement

Pilot Test

Purpose:

To evaluate if the intervention effectively enhances users' communication and workflow-related performance.

Timing:

After the job aid is integrated into daily practice with minimal facilitation.

Participants:

Designers, sales associates, and team leaders or managers

Performance Indicators to Observe:

- Clarity of initial project briefs
- Number of revisions per project
- Percentage of projects with on-time delivery

Procedures:

Compare the performance data from the week before the intervention to the data from the four-week test period.

Instruments:

PMS Data

Performance-Centered Critical Incident Interviews

Purpose:

To examine how the intervention helped or failed to help in actual communication or workflow situations.

Timing:

At the conclusion of the pilot test.

Participants:

Six users (designers, sales associates, or team leads)

Guidelines:

Ask users to describe:

- A moment when the tool helped them in avoiding a problem.\
- A moment when it let them down
- Changes in their planning or communication since using it

Procedures:

Semi-structured interviews that are recorded or transcribed

Instruments:

- Interview guide
- Coding framework (OpenAI, 2024)

Recognition Communications

Purpose

Consistently acknowledge and celebrate outstanding individual and team contributions to strengthen a culture of collaboration, appreciation, and excellence.

Key Elements

- A transparent selection process involving peer nominations and leadership input.
- Internal Monthly Email featuring 2-3 recognitions.
- Selected recognitions may be shared on the company's LinkedIn page with consent to enhance individual visibility and strengthen employer branding.

Selection Process

Peer Nominations (week 1-2)

- Team members can nominate their peers through a simple [digital form](#).
- Option to nominate teams or individuals.

Leadership Review (week 3)

Leadership assesses nominations using clear [criteria](#) based on:

- Impact
- Collaboration
- Innovation
- Leadership
- Consistency
- Alignment with the company's values

Two to three individuals or teams are chosen for the monthly communication.

Communication (week 4)

- Human resources uses a [template](#) to draft the recognition message.
- Consent is necessary when peers are publicly acknowledged on LinkedIn.
- The internal email highlighting the monthly achievements is distributed.

Nomination Form

Help us highlight the remarkable contributions occurring across our teams. Whether it's a major project achievement or a small moment of going above and beyond, we want to know about it.

1. Who are you nominating?

- ☐ Individual
- ☐ Team

Name (s):

Department/Team:

2. What did they do?

Describe the behavior, actions, or achievements that deserve recognition.

3. Why is this important?

This helps us understand the impact and value of the contribution.

- ☐ It had a significant impact on a project, client, or company results.
- ☐ It helped a team overcome challenges or meet tight deadlines.
- ☐ It improved how we work, communicate, and deliver.
- ☐ It introduced creative solutions or fresh ideas.
- ☐ It demonstrated our core values in action.
- ☐ It supported a colleague's success and well-being.
- ☐ It inspired or motivated others.
- ☐ It helped prevent risks, errors, or problems.
- ☐ It demonstrates a pattern of reliable and positive contributions.
- ☐ It showcased leadership through initiative, guidance, or positive influence.
- ☐ Other.

(OpenAI, 2024)

Leadership Evaluation Rubric

Each nomination is evaluated on a 4-point scale based on six criteria. This guarantees consistency, fairness, and transparency in

Criteria	4-Exceptional	3-Strong	2-Moderate	1-Minimal
Impact	Contribution led to significant outcomes and improvements across teams and the organization	Clear and meaningful outcomes for teams or clients	Small-scale or emerging impact	Limited or unclear impact
Collaboration	Promoted cross-functional collaboration and supported team success	Worked effectively with their team or another team	Some collaboration exists, but it is not a core aspect	Little collaboration, mostly individual effort
Innovation	Introduced an innovative concept, process, or solution that improved work or motivated others	Adapted or creatively improved existing approaches	Some creativity is demonstrated	Routine work without innovative approaches
Leadership	Proactively guided others, influenced choices, or set a strong example	Took the initiative or helped others in ways that contributed to the team's success.	Demonstrated some initiative.	Limited demonstration of leadership qualities
Consistency	Demonstrates exceptional contributions repeatedly over time.	Shows consistent, dependable contributions with occasional peaks	Demonstrates some consistency, but there are gaps.	One-time contribution or vague pattern of consistent effort
Alignment with Company Values	Represents core company values	Generally aligns with company values	Some alignment with company values is evident	Little alignment or unclear connection to values

(OpenAI, 2024)

Recognition Email Template

Subject Line

Recognition Matters: Celebrating Those Who Made a Difference This Month

For team recognitions:

Teamwork That Made a Difference: (team name or project)

- Contribution: A brief summary of the achievement
- Impact: The outcome or improvement resulting from this effort

Example:

Teamwork That Made a Difference: Takis 1469 Project

- Contribution: The team managing this project faced unexpected material shortages; they quickly sourced alternative suppliers, revised the design specifications, and adjusted the production timeline.
- Impact: They successfully delivered the custom displays with minimal delay, exceeding client expectations while preserving both quality and creative intent. They transformed a potential setback into a trust-building opportunity. (OpenAI, 2024)

For individual recognitions:

Outstanding Individual Contribution: (name and department)

- Contribution: A brief description of actions or behaviors deserving recognition.
- Impact: The outcome or improvement resulting from this effort

Example:

Outstanding Individual Contribution: Maria Rodrigues - Design Team

- Contribution: Maria redesigned a widely used display structure to enhance its assembly process on the production line. She accomplished this while preserving its visual impact and durability.
- Impact: Her redesign cut assembly time by 20% for each unit, lightening the production workload and reducing errors. This allowed the production team to meet demand more effectively during peak periods. (OpenAI, 2024)

Quote

Optional quote from nomination submissions or leadership.

Get Involved!

Want to recognize a teammate? Click [here](#) to submit a nomination for next month. Let's keep celebrating our achievements, big or small.

Optional LinkedIn Highlight

We've showcased (Name or Team) on our LinkedIn to celebrate their outstanding work.

Intervention Evaluation

Technical and Editorial Review

Purpose:

Ensure the nomination form, rubric, and email templates are clear, usable, inclusive, and technically accurate.

Timing:

Early draft

Participants:

A communications specialist and a representative from each team.

Guidelines:

- Ensure consistency in appearance, structure, and tone according to high-level design.
- Ensure that the language of the rubric is fair, measurable, and non-discriminatory.
- Clear and motivating email language.

Procedures:

Review digital forms and templates using a collaborative tool that enables annotated feedback.

Instruments:

Editorial Review Checklist

Usability Test of the Nomination Process

Purpose:

Ensure the nomination process is intuitive and promotes quality submissions.

Timing:

Before the rollout.

Participants:

Six employees representing diverse roles and experience levels

Procedures:

Users are asked to fill out a nomination using the digital form and think-aloud while doing it

Key Questions to Probe:

- Did they understand what constitutes a strong nomination?
- Did the categories feel constraining or empowering?
- Did they feel at ease sharing this story?

Instruments:

- Usability Checklist
- Think-Aloud Observation Notes

Survey on Recognition Culture

Purpose:

Evaluate how recognition affects team morale, perceived value, and motivation.

Timing:

Before the rollout and two months after the launch

Participants:

All employees

Key Metrics:

- Acknowledgement of contributions
- Motivation
- Awareness of others' success

Instruments:

Three Likert scale questions

Micro-Interviews

Purpose:

To uncover deeper stories about how recognition influences behavior, motivation, or collaboration.

Timing:

Two months into implementation

Participants:

Two recognized employees and two nominators

Sample Questions:

- What made you nominate someone?
- How has being recognized affected your sense of contribution?
- Have you observed a change in team morale or collaboration?

Instruments:

- Interview guide
- Coding framework

Behavioral Metrics Tracking

Purpose:

To determine whether performance improvement is associated with recognition.

Timing:

Every three months following the launch

Participants:

All employees

Key Metrics:

- Increase in peer nominations over time
- Retention or promotion patterns of frequently recognized employees

(OpenAI, 2024)

Client Design Brief

Project number:

Date of request:

Sales representative:

Client Information:

Client company name:

Client contact name:

Email:

Phone number:

Preferred communication channel

- ☐ Email
- ☐ Phone
- ☐ Video Call

Project Overview

Project context (purpose)

- ☐ New product launch
- ☐ Seasonal campaign
- ☐ Rebranding or packaging update
- ☐ Expansion into new stores or markets
- ☐ In-store promotion or flash sale
- ☐ Cross-promotion with other brands
- ☐ Trade show or special event
- ☐ Point-of-purchase display initiative
- ☐ Test market display
- ☐ Limited edition
- ☐ Other:

Project goals and objectives

- ☐ Increase product visibility
- ☐ Boost product sales
- ☐ Improve brand recognition
- ☐ Educate customers about the product features
- ☐ Encourage impulse buys
- ☐ Differentiate from competitors
- ☐ Meet retailer display requirements
- ☐ Highlight sustainability
- ☐ Highlight product innovation
- ☐ Enhance customer interaction or experience
- ☐ Drive traffic to digital platforms
- ☐ Support a larger marketing campaign
- ☐ Other:

User demographics: (age, gender, location)

Display Requirements

Number of displays:

Number of products to display:

Number of fronts (visible panels):

Stores where the display will be used:

Product Details

Product name(s):

Product specifications: (weight, packaging, etc)

Product dimensions: (L x W x H in cm)

Sample Inventory Code:

Design Specifications

Printing type

- ☐ Silkscreen
- ☐ Full-Color Offset
- ☐ Inkjet
- ☐ Flexographic
- ☐ Other:

Corrugated cardboard finish

- ☐ Brown kraft
- ☐ White opaque
- ☐ Glossy laminate
- ☐ Matte
- ☐ Other

Special features and requirements

- | | |
|--|---|
| ☐ Interactivity | ☐ Lighting Elements |
| ☐ Modular design | ☐ Shelf-ready packaging integration |
| ☐ Easy assembly | ☐ Recyclable Materials |
| ☐ Product protection | ☐ Other: |

Recommended Dimensions for Display: (L x W x H in cm)

Market Context

Key Competitors:

Competitor Display Examples Client Likes or Dislikes (Attach images if available)

Likes:

Avoid:

Budget & Constraints

Client Budget (CAD):

Estimated delivery date:

Packaging Constraints:

Shipping Constraints:

Additional Notes

Brand guidelines, special materials, logistical requirements, reference files, etc.

(OpenAI, 2024)

Intervention Evaluation

Technical and Content Review

Purpose:

Ensure that all required data fields are accurate, relevant, and structured to support efficient handoffs.

Timing:

Early draft

Participants:

Industrial designer, sales associate, and production coordinator.

Guidelines:

- Make sure to include all essential display and product specifications.
- Ensure the layout aligns with the workflow sequence
- Ensure consistency in terminology with internal systems and roles.

Procedures:

Share the brief as a Word or PDF document with comment features enabled.

Usability Test

Purpose:

Ensure the sales team finds the template clear and intuitive in actual project scenarios.

Timing:

After technical and content review.

Participants:

Four sales associates with varying levels of experience

Guidelines:

Provide realistic mock projects

Procedures:

- Moderate tasks applying the think-aloud method.
- Monitor time to completion and the ease of locating sections.

Instruments:

Think-Aloud Notes

Audit of Project Clarity and Rework

Purpose:

Determine if the template results in more comprehensive and usable design briefs that minimize revisions or delays.

Timing:

Before and after 6 weeks of use

Participants:

Design team lead, sales team supervisor, and analyst.

Metrics to Track:

- Percentage of design briefs returned due to missing information.
- Average number of revision rounds per project.
- Satisfaction rating from designers regarding input clarity.

Procedures:

- Moderate tasks applying the think-aloud method.
- Monitor time to completion and the ease of locating sections.

Instruments:

- Designer feedback survey
- PMS data

(OpenAI, 2024)



Summative Evaluation

The summative evaluation plan for the performance improvement campaign at Corrugrafix is designed to determine the effectiveness, efficiency, impact, and value of the interventions implemented to enhance project workflow, communication, and on-time delivery across sales, design, and production teams. (Van Tiem et al., 2012)

Business Objective

As mentioned in the PNA, increase revenue by delivering projects on time and meeting customer expectations.

Performance Metrics from PNA

- Employee adoption rates for tools and workflows
- Initial approval rates for renders and prototypes
- Revision rates for each project
- Average time from request to delivery.
- Percentage of projects completed on time
- Client satisfaction ratings
- Designer workload distribution
- Turnover rate among employees

Purpose

The summative evaluation aims to determine if the performance improvement campaign decreased the original performance gap and met the organization's business needs.

Scope

It emphasizes immediate outcomes, including skill application, system adoption, process compliance, and early organizational results.

Evaluation Questions

- Are employees using the new tools and processes?
- Have competencies such as timeline estimation, workload assignment, and communication improved?
- Is there evidence of improved workflow?
- Have project delivery timelines and client satisfaction improved?
- Do employees and leadership perceive the interventions as valuable?

Evaluation Methods and Instruments

This section follows the Kirkpatrick/Phillips Evaluation Model, which evaluates outcomes across five levels: Reaction, Learning, Behavior, Results, and ROI. It is also influenced by the Dessinger-Moseley Full-Scope Evaluation Model, as it integrates various layers of evaluation, including participant response, job application, and organizational impact. (Van Tiem et al., 2012)

Level	Instruments	Data Sources
Reaction	Surveys and focus groups	Sales, design and production teams
Learning	Pre/post quizzes	Sales and design team training records
Behavior	PMS usage analytics and observation checklists	System logs and team meetings
Results	Performance dashboards and client feedback	KPIs and customer surveys

ROI Analysis

The ROI analysis provides a financial justification for the investment in performance improvement. The ROI layer translates performance enhancements into economic terms, aiding decision-makers at Corrugrafix in understanding the tangible business value of the interventions. A positive ROI strengthens future investments in workflow, communication, and performance enhancement initiatives. (Stolovitch & Keeps, 2004)

Administration Plan

This administration plan is informed by the Smith and Brandenburg approach to summative evaluation planning. (Van Tiem et al., 2012)

Timeline:

Start gathering data one or two weeks after the major intervention rollout. This timeline ensures participants have a chance to interact with the new tools and workflows, enabling early outcomes to surface without unnecessary delays.

Staffing:

An internal evaluator knowledgeable about Corrugrafix's processes will oversee the evaluation, with the possibility of external support to ensure objectivity and provide technical assistance for data analysis.

Budget:

The budget will primarily rely on internal resources to reduce the need for external consultants.

Reporting:

The findings will be presented in both visual and narrative formats. This report will feature dashboards for leadership to monitor progress, evaluation insights, and recommendations for scaling or modifying interventions. The report will be distributed to all relevant stakeholders to promote transparency and encourage informed decision-making.

(OpenAI, 2024)

References

OpenAI. (2024). *ChatGPT*. <https://chatgpt.com>

Stolovitch, H. D., & Keeps, E. J. T. A.-T. T.-. (2004). *Training ain't performance* ([First edi). ASTD Press.
<https://doi.org/LK> - <https://concordiauniversity.on.worldcat.org/oclc/1348711259>

Van Tiem, D. M., Moseley, J. L., & Dessinger, J. C. T. A.-T. T.-. (2012). *Fundamentals of performance improvement : optimizing results through people, process, and organizations* (Third edit). Pfeiffer, a Wiley imprint. <https://doi.org/LK> - <https://concordiauniversity.on.worldcat.org/oclc/773371811>

