

Challenge 4: Integrate figures into a storyboard.

- Assemble figures into a "storyboard"
- Assess how each figure contributes to the major theme
- REVISE figures to focus on the major theme
- REVISE bullet points to focus on the major theme
- Add figures to fill in gaps
- Remove figures to eliminate redundancy

Sample Draft Storyboard



Methods

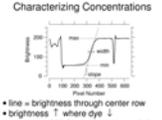
- tabulate blurring statistics
- frames separated by 1 mm

Changes with Mixing Distance

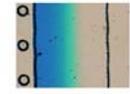
Frame	min	max	width
1	115.0	241.3	0.684
2	120.0	239.9	0.647
3	130.0	217.5	0.448
4	130.0	200.0	0.274
5	134.1	202.9	0.200
6	138.0	187.5	0.204
7	138.0	184.0	0.215
8	142.0	184.8	0.210
9	144.0	180.0	0.190
10	145.0	180.7	0.188
11	147.0	179.0	0.190
12	149.0	176.7	0.192
13	150.0	173.8	0.186
14	151.0	173.3	0.188
15	153.0	172.0	0.180
16	153.0	171.2	0.180

- line = brightness through center row
- brightness ↑ where dye ↓
- measure width from min, max, and slope

Characterizing Concentrations

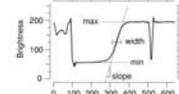


Sample Image



- circles are distance markers (250 μm)
- blue dye in left channel, none in right
- blurring of dye in center → diffusion

Characterizing Concentrations



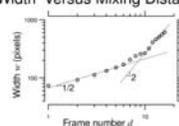
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Width Versus Mixing Distance



- log-log plot of w versus d
- $w \propto \sqrt{d}$ → consistent with theory
- $w \propto d^2$ → "edge effects" ?

Challenge 5: Translate bullet points into report text.

- Use "storyboard" as an "outline" of your report.
- Develop bullets into well-supported arguments. Integrate figures with text.
- Read and revise to fill in gaps.
- Add abstract, references, and other supporting material.

