

WHY CRITIQUE FAILS

PEER-BASED LEARNING IN DESIGN EDUCATION

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1. BACKGROUND AND INTRODUCTION

The goal of a university education is to prepare students for a career in their given field. Employers want students to possess strong communication skills and be able to self-evaluate their work and learn independently. However, many employers complain that students do not possess the desired skills. Additionally, students in universities today are planning for careers that are constantly changing or may not exist yet. Therefore, helping students learn how to learn is becoming more valuable than technical skills and specific pieces of information. (Anderson & Speck, 1998)

Design Education is based around critique, or dialogue, about students' work. "Participation in design critiques, or reviews of creative works, are considered essential to learning how to design" (Conanan & Pinkard, 2001, p. 1). Critique has the potential to help students learn professional skills. However, at times, a critique environment can be a high stakes environment that might intimidate students and undermine learning (Schrand & Eliason, 2012). The classroom setting does not always allow all types of students the ability to participate, and students who "are not confident enough to ask questions are further left behind" (Schrand & Eliason, 2012, p. 14). "Students' future rests on their ability to grasp the full meaning of the feedback given to them" (Dannels, Gaffeny & Martin, 2008, p. 11). Often students miss information because they cannot see or hear what is happening or they lose focus because critique is too long. The current situation seems to be that "most students experience universities as isolated learners whose learning is disconnected from that of others. They continue to engage in solo performance and demonstration in what remains a largely show-and-tell learning environment...Learning has become a 'spectator sport' in which faculty talk dominates and where there are few active student participants" (Tinto, 2003, p. 1). In such a system, it is unlikely that students will learn how to learn or master the crucial skills of communication, self-evaluation, or active learning.

Peer interactions create opportunities for learning to take place. Students learn through active participation and opportunities to explore their own ideas through discourse, debate, and inquiry (Anderson & Speck, 1998). The Social Learning Theory supports this idea and views learning as a process where, "knowledge is created most effectively when learners interact with one other while performing a task" (Hiltz & Goldman, 2005, p. 192). Similarly, learning communities help students engage in a deeper form of learning (Zhao & Kuh, 2004). Students in learning communities "report an increased sense of responsibility to participate in the learning experience, and an awareness of their responsibility for both their learning and the learning of others" (Tinto, 2003, p. 6). Learning communities help students build confidence as they become less passive and take more responsibility for their learning. Within learning communities, students develop their own self-supporting groups which extend beyond the

classroom. Students who join learning communities have higher performance levels, put more effort into their work, and are more satisfied with the overall learning and college experience. (Tinto, 2003).

College students today are part of a generation called Millennials. Millennials have “grown up never knowing a time when the internet did not exist or that certain technologies such as smart phones, digital cameras, blogs, and wikis were not always a part of mainstream society” (Cope & Kalantzis, 2009, p. 94). Students connect with friends through social networking sites, maintain relationships through constant electronic connections, play online games, capture events with digital cameras, blog about their intimate experiences, navigate using a GPS, and learn through Google and YouTube. Technology allows students today to have the opportunity to interact and learn from students in different geographical locations. Social networks bring people and social groups together that might never meet in real space. There is potential to use technology and an online platform to help students receive additional constructive feedback on work, reduce students’ dependency on faculty critiques, and help students to learn to evaluate design work.

2. TARGET AUDIENCES

Three target groups were selected for this research: design students, design instructors, and design professionals. When different groups of people are targeted for information, a more broad and less biased group of data can be collected. This helps uncover apparent truths and is useful when dealing with qualitative data.

Design Students

Since this study revolved around helping students, it was crucial to understand the perceived issues from the students’ perspectives. It was also important to know where they struggled. If students do not think that something is an issue, it is unlikely that they would be interested in trying to fix it. Therefore, this study focused on areas where students acknowledge that they experience issues.

Design Instructors

Instructors often see the bigger picture and learning objectives that students sometimes miss. Therefore, It was important to understand from the instructor’s point of view where students struggle most.

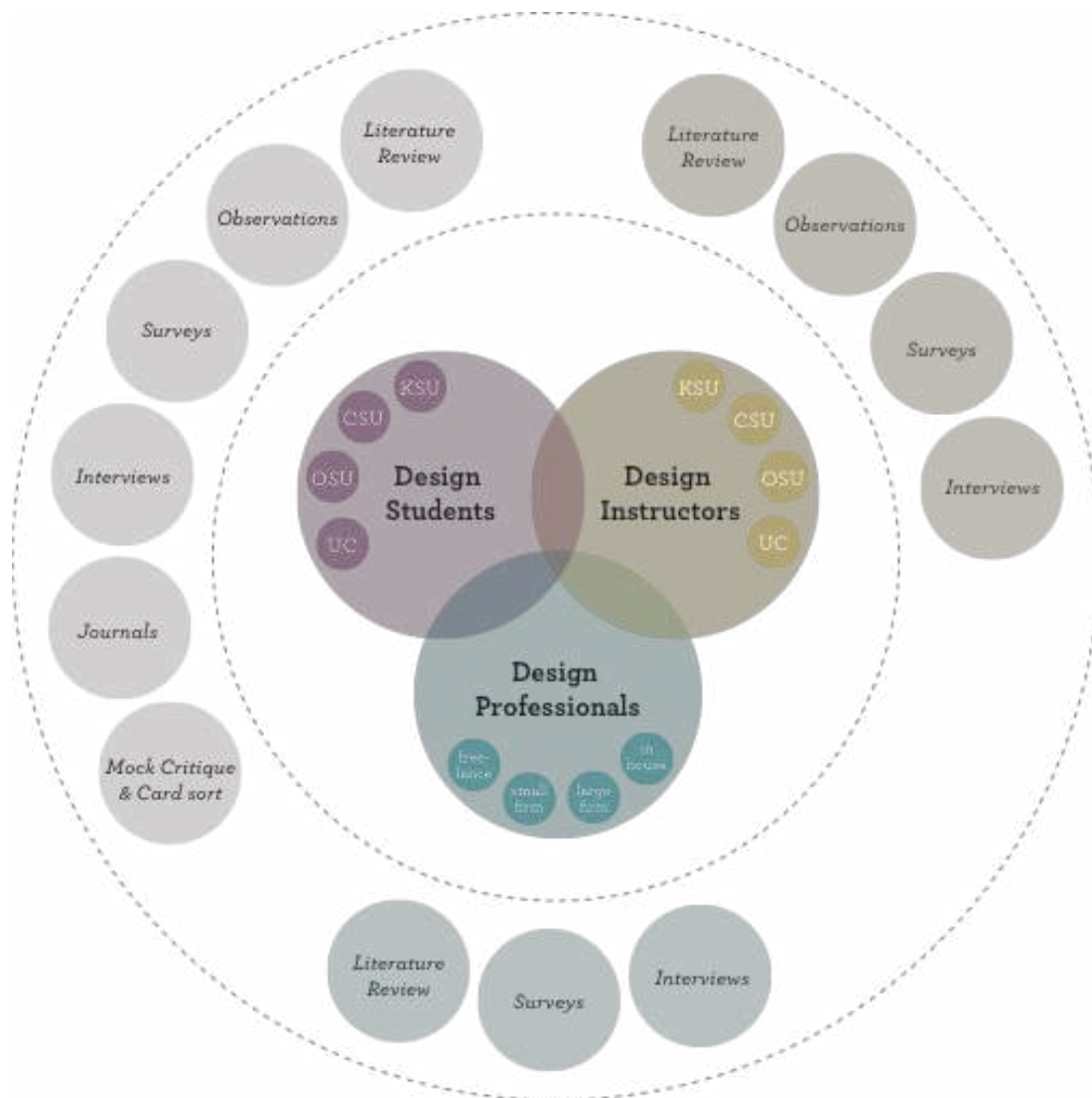
Design Professionals

Design professionals have been through the schooling system and are now using what they have learned on a daily basis. They interact with entry level designers as well. It was important to understand from their perspective where design students struggle. Their insights clarify what problems will or will not affect students’ professional development.

The Search for Universal Issues

It became apparent that there was a need to distinguish between universal problems for students in design education and school-specific issues. The focus was intended to be exclusively on universal problems since the goal was to create a system that can work with different universities and programs. Therefore, it was decided to include in this study students and instructors from four different design programs in four different universities. For convenience, and in order to limit the study to a specific geographical location, research was conducted solely at state universities in Ohio. The universities

involved in this study were: Kent State University, Cleveland State University, The Ohio State University, and University of Cincinnati. While each university offers a design degree, there are significant



differences between the various programs.

Figure 1: Triangulation of research methods as they apply to the target audiences

3. RESEARCH PLAN/METHODS

A research plan was created to guide the research for this project. The research plan outlined the steps to be taken and the types of information to be obtained. This plan consisted of five major steps: initial exploration, understanding critique, researching existing design networks, organizing and making sense of the information gathered, and prototype ideation. Below is a visual that shows the steps that were involved in each section of the research. A variety of methods were included to triangulate the research in hopes of finding less biased data and uncovering more reliable apparent truths.

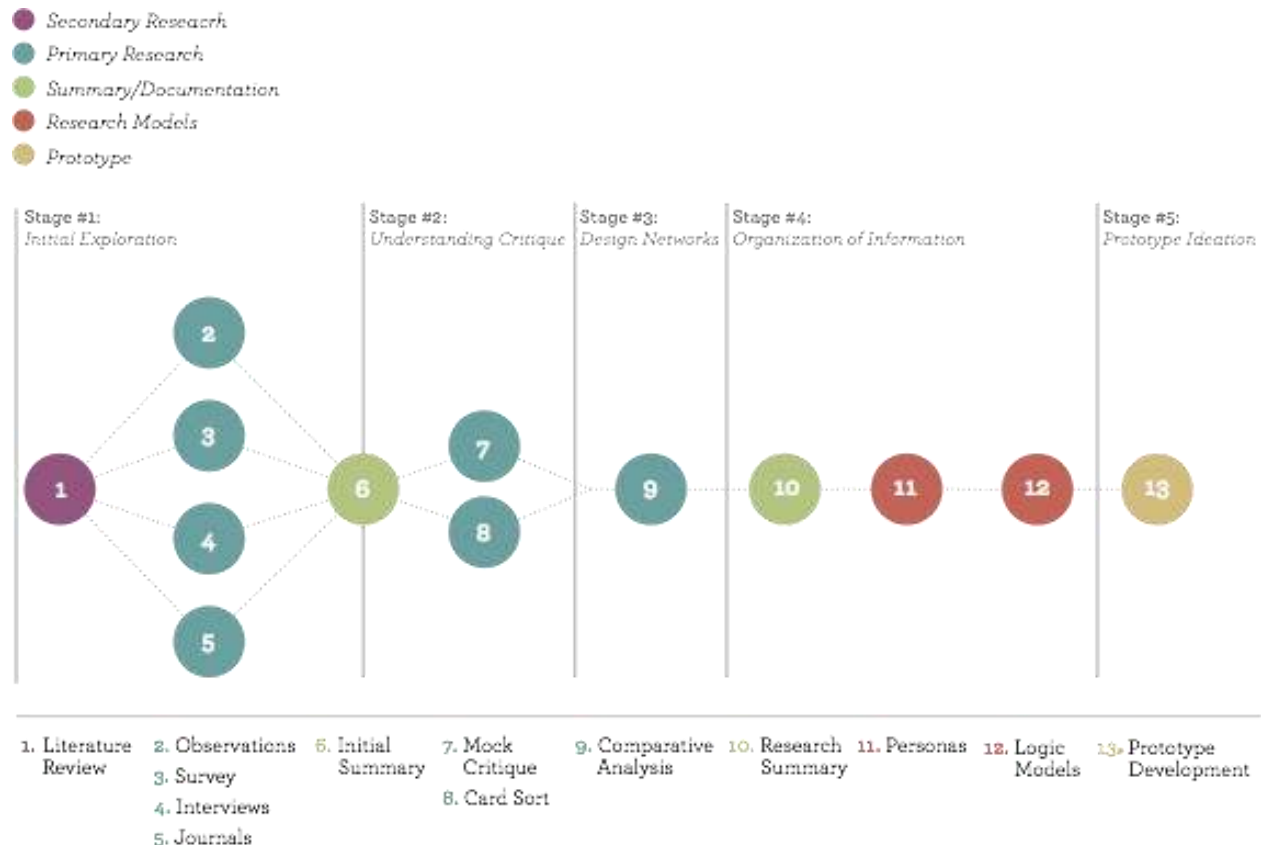


Figure 2. Longitudinal research projection model

4. SUMMARY OF KEY FINDINGS

Most students do not understand design. They think that design is about the end artifact and that it is a form of art. However, both instructors and professionals view design as a method of action. “Design is not a noun, it’s a verb,” stated one instructor. Design is less about the artifact and more about the process of problem solving and filling a need.

Students need to learn important professional skills such as communication, time-management, confidence, and independent learning.

Design students experience many issues with their work. Students often struggle with ideation, inspiration, experimentation, exploration, and expectations. Additionally, students get stuck on homework and will give up and leave it for later class discussion.

Design students experience a great deal of stress while working on projects. There were endless quotes from students about their stress and anxiety when it came to their work and critique.

Many students understood that there is value in peer-interactions. However, students did not often feel comfortable reaching out to their peers or feel that they had a way to reach out to their peers. One

student told me, “I should get input from my peers, but I’m too afraid of coming off as not knowing enough about design and perhaps not worthy of being in the program.”

In-class critique provides an opportunity for students to learn skills; however, many do not participate or think that they receive enough feedback. Additionally, In-class critique becomes a crutch, and students wait for the instructor’s approval instead of evaluating their work for themselves and taking initiative.

Students spend much of their time online, especially procrastinating from doing their work. Additionally, they feel very comfortable with online environments. Therefore, there is huge potential to reach students and help them through this media.

5. PERSONAS

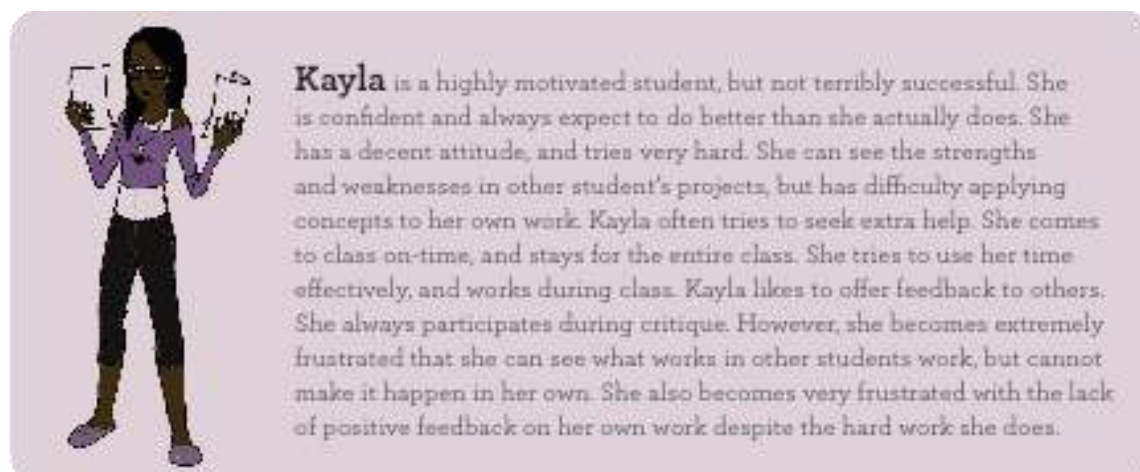
Personas were created to help organize the research and make the users, in this case students, seem more real and understandable. Five different types of students were identified. Each one is an extreme on a scale. While most students are likely a combination of a few personas or at times one persona and other times another, each persona exemplifies specific attributes of students as a whole that cover the



entire range of possibilities.

Figure 3: Persona 1, Marci (drawing created by Aliza Donath)

Figure 4: Persona 2, Kayla (drawing created by Aliza Donath)





Dan is a mediocre student who is somewhat motivated and successful. He has a decent attitude, though he sometimes feels indifferent or discouraged. He prefers to work alone. Dan procrastinates and underestimates how long assignments will take to complete. At times, he completes assignments in advance, while other times he races to finish them. While working on homework, Dan often becomes frustrated, gives up, and passively waits until the next class for help from his instructor. He often comes a few minutes late to class and leaves at the very first opportunity. He does not usually use his time during class effectively, and will talk to those around him about non-class-related topics. Dan will occasionally ask for feedback and discuss his work. He is interested in critique, but typically sits quietly. He pays attention, but does not often participate. Dan is usually unsure of what to say or what feedback to offer. He often does not ask questions for fear of looking stupid.



Ryan is an unmotivated but successful student. He relies on talent and the ability to work quickly. He is very confident and a little arrogant at times. He does not have the best attitude and can be haughty at times. Everything comes a bit too easy for him and he does not have to work hard to produce decent results. He underestimates how long assignments will take to complete. He does not always complete his work, but what he does complete is good. Dan misses a lot of class or often comes late. He does not usually do much work during class, but sometimes does work for a different class. He often distracts those around him and talks about non-class-related topics. When he is present, he has good feedback to offer during critique and is more than happy to offer his opinion.

Figure 5: Persona 2, Dan (drawing created by Aliza Donath)

Figure 6: Persona 2, Ryan (drawing created by Aliza Donath)

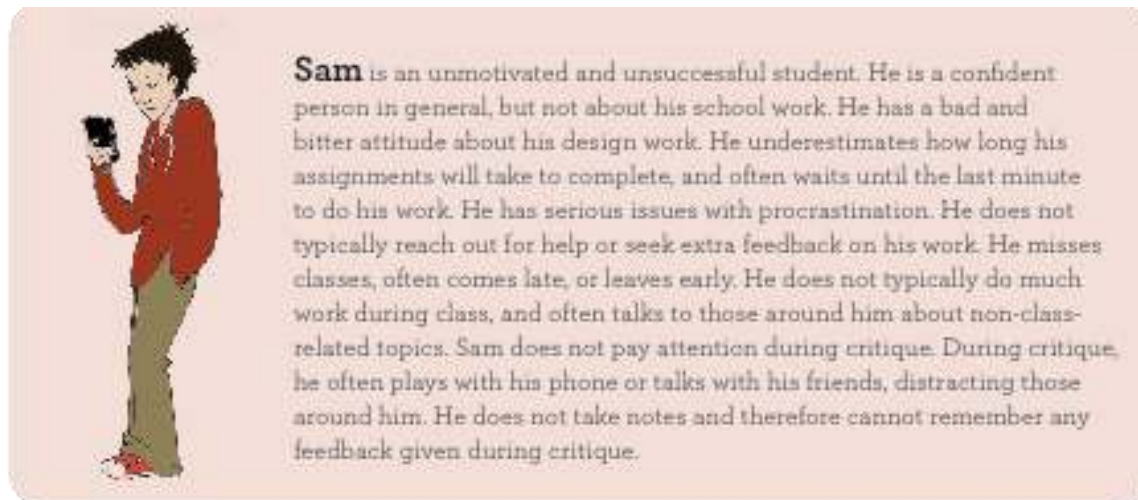


Figure 7: Persona 2, Sam (drawing created by Aliza Donath)

6. EXPERIENCE MODELS

The “Five E Experience Model” (Conifer Research, 2002) was used to explain the experience of working on a design project in a university setting. This model is based on the gathered qualitative data. The five E’s stand for: Entice, Enter, Engage, Exit, and Extend. The breakdown of the experience is as follows:

- **Entice** is the stage where students are enticed to begin a new project. A new assignment is given together with instructions and objectives.
- **Enter** is beginning the process of ideation and sketching. It is also a new step, or section of a project.
- **Engage** is working on the bulk of a project. This includes homework, classroom critiques, and work in class sessions. Most project time is spent in this stage.
- **Exit** is the final stage of a project when students finish their projects and prepare to hand them in.
- **Extend** is when students receive their grade and feedback about their overall project. It is the final connection to a project, and can be motivating or discouraging for future projects.

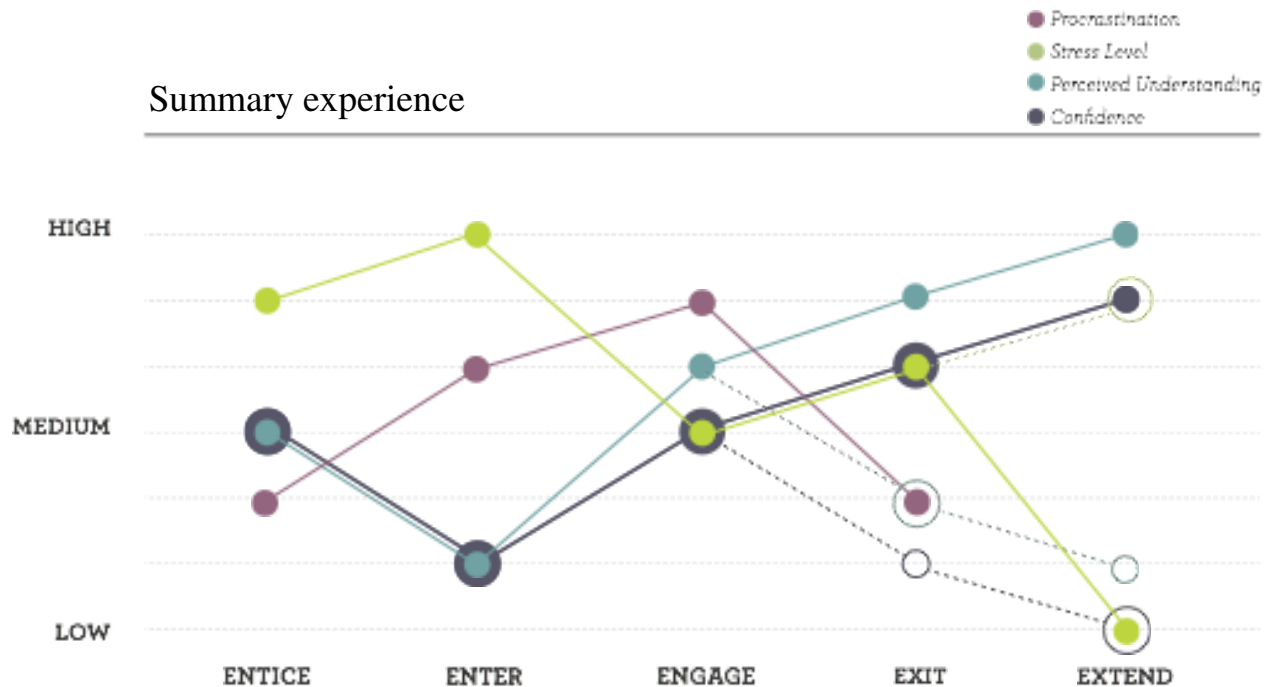


Figure 8. Summary experience model of working on a design project

Although every individual student's experience is different, this graph shows a generalized experience. When students begin a new assignment, their level of perceived understanding decreases as so does their confidence. When this happens, students begin procrastinating and become stressed. As they work, they begin to understand more and their confidence rises. This decreases their level of stress. However, if students receive negative feedback on their work, their perceived understanding decreases as does their level of confidence. Additionally, they become increasingly stressed about their work. The more students think that they do not understand, the more they procrastinate. For most, procrastination exists until the deadline becomes immediate and they realize that they must work hard to complete their work on time.

7. PROTOTYPE DEVELOPMENT

From the experience model, it seems that perceived understanding drives the experience. In the beginning stages of a project, students have low levels of perceived understanding and corresponding low levels of confidence. Then students procrastinate since they do not know how to proceed or underestimate the time needed to complete the project. Students become stressed since they do not see the desired results. The prototype, *Crit-Chat*, was developed to help alleviate students' stress during the initial stages, and help them to build confidence and perceived understanding. In turn, this should help students to begin projects quicker with less anxiety. To address these issues, there are four proposed aspects of *Crit-Chat*: community, time-management, inspiration, and critique.

Crit-Chat is intended to be a community of practice and learning community for design students. It would not be affiliated with any particular university. *Crit-Chat* would be for all university-level design students without the oversight of instructors or professional designers, creating a stress-free environment. A time-management component would be included to help students visualize their time and keep track of their

responsibilities. *Crit-Chat* would have a place for inspiration to help students begin projects more quickly and procrastinate less. Additionally, *Crit-Chat* would include a critique component to help students learn to communicate about design, work with peers, and evaluate design work for themselves. The critique environment should foster students' confidence in their design work and critiquing abilities. Students would have the opportunity to interact with peers with varying levels of expertise from different geographical locations. Students could mingle, learn from, and teach one another. Students who are normally uncomfortable participating during class, would have the opportunity to interact with peers online in an environment in which they feel comfortable. *Crit-Chat* would provide students with a way to reach out for help and a network that would foster professional connections between future designers.

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