Hi. My name is skybre Baker.,I'm a post doc and one of the grant coaches for the Grant Writing Academy at Stanford University.,Now,,in this short video, I'll be discussing effective ways to communicate a research plan for a grant or a fellowship application.,The research plan is a narrative document that,provides a clearly defined set of goals in how you plan to reach them.,When you're developing your research plan, it can be helpful to use a specific AIMS page as a road map.,In a previous video, crystal Bothham introduced you to a set of questions that should be addressed in the specific game's page.,1st you need to address whether the question you are proposing is important.,What is the overall goal of the project?,What specifically will be done in the project, and what are the expected payoffs of the project?,The bulk of a research plan consists of the overall goal and what will be done.,And this is in the form of detailed specific games.,However, you must not forget that you need to communicate why the project is important and what can be expected.,Thus, the detailed research plan will bridge this gap between the need and the payoff.,To instill this analogy of bridging a gap, let's consider how we might create a research plan for a proposal to build a bridge from San Francisco to Marine.,To convince the funding agency for the money to do this, you may have to address some key questions.,1st, is there a need for the bridge or for the project?,And if there is a need, why hasn't it been done already?,Are there any specific barriers that need to be overcome?,2nd, you'll need to address the details of the project.,How will the project be accomplished?,This can be broken down into some other key questions.,Specifically, what are the methods and the analysis that will be used?,What are the expected outcomes? What might go wrong, and how will it be managed?,And what are some alternative approaches if things do go wrong?,3rd, you'll need to address how long the project will take, and finally, you want to address the expected payoff, and what are future directions that might be envisioned falling at completion?,Answering these questions will effectively address this background and significance.,The aims the timeline and a conclusion in future direction section that can form an outline for your research plan.,So now that we have an outline for our research plan, let's look at each section independently.,1st let's take a look at the background on significant section.,In this section, you'll need to address the importance of the problem.,This may include the premise for the proposed project, the strengths and weaknesses of previously published research, or any of your preliminary data.,This will allow you to outline a knowledge gap or a technical deficit deficiency that the project will overcome.,In our bridge analogy, we might not state that we will provide a new avenue for exploration and commerce between San Francisco and Morin, ,and we may advance the field of bridge building in the future.,Briefly, I'd like to address innovation in your research project, because many applications request a statement on innovation.,Innovation can apply to improved approaches or methodologies.,Specifically, you want to describe how your proposal improves upon previous research.,This can include, but is not limited to changes in methods, technology or improved experimental design.,In our bridge analogy, we can state that will be developing a new material for bridge building that will revolutionize the way that we build bridges in the future.,So now we have covered the background and significant section of our research plan.,Next step is the AIM section, as described by the instructions.,Directly from an NH application form, ,your aims should include the following a hypothesis specific games and objectives used to examine this hypothesis, ,a description of methods, approaches and techniques that will be used, discussion of possible problems and how they will be managed.,Finally, alternative approaches that might be used if needed.,So how can we organize this information into a cohesive document? Well, we can break up the AIM section into five parts an introductory paragraph, preliminary data methods, expected outcomes and alternative,approaches. Your introduction should be short about one paragraph and provide the reviewers with a conceptual overview of the importance of this AIM.,This will,include specific objective, a working hypothesis, rationale behind the hypothesis, and expected outcomes.,The next section should cover your preliminary data.,This section a very in length,,depending on space limitations and the amount of preliminary data you have to present.,It should provide a critical review of the relevant literature your preliminary studies that help establish the project's feasibility.,The data presented here should be clear and capable of standing alone outside the greater framework of the grant, e.g.,figure legends should be clear and more detailed, giving some background and data interpretation.,By walking your reader through the presented data, you lead the reviewer to conclude that you and the project are capable of success.,In our bridge analogy, we might state that our new material has been tested for strength, demonstrating that it will be suitable for our proposed bridge.,Next, you will develop your method section that will provide a detailed description of the experimental design or the aims.,This should include validation of essential rages and approaches, appropriate description of controls and their significance.,Any statistical analysis that will be used and the interpretations that can be made from the resulting data in this section, ,remember to use strong words like expect and can avoiding weaker words like hope and try.,In our bridge analogy, we might say that our proposed material will be regularly tested throughout construction, and we expect that its strength capacity will be validated.,You also need to describe the outcomes that you expect from these experiments.,Do this by summarizing the expected experimental outcomes and providing an interpretation of the data. Specifically, what is the immediate payoff that you may get from these results, and does this address the knowledge gap that you wish to bridge?,In our bridge analogy on data collected during construction, we might say that our results confirm that the material meets current standards and justifies continued work.,This leads us into our alternative approaches, which is the final component of the aim section.,You can introduce alternative approaches by highlighting potential problems, e.g.,if you don't get the expected outcomes that you were hoping for.,In our bridge analogy, we might say that if the strength of the new material is in question, it would only be used for certain portions of the bridge that were less critical.,So that sums up what's required in the AIM section.,Next, will take a look at the timeline and the conclusions in future directions required in your research plan.,A timeline is an important feature of your proposal because it helps to bridge the gap between the need and the expected payoff.,By demonstrating feasibility. In our bridge analogy, you might state that in your one,, you expect the support structure to be complete, and in year two, you expect the service structure to be complete, And provide data that supports this current timeline.,You can also demonstrate the feasibility of a project, or the timeline that you hope to achieve visually.,This can help a reader more quickly gather the expected timeline between multiple projects that may be overlapping, and it saves you space.,Finally, let's look at the conclusion in future directions at the end of your research plan.,In this section, you should summarize the expected outcomes and how they will bridge a current knowledge gap, and how the proposed project will lead to progress in the field.,Furthermore, you can discuss future experiments or approaches that may be possible after the project has been accomplished.,In our bridge analogy, a critical barrier has been eliminated, and we've bridged the gap between San Francisco and Marin. We can now explore Marin. Also.,With the advent of our new bridge technology, we may one day be able to build a bridge all the way to Hawaii.,In this way, we've discussed the immediate payoffs of the bridge, as well as future paths that are yet to be unforeseen.,In this way, we discuss the immediate paths as well as long term paths that may be achieved as a result of this project.,Now, we've,gone through the key sections of your research plan outline, but remember, these sections are based on,a set of key questions for your research plan.,E.g.,it should be clear from reading your proposal that there is a need for the project.,In addition, there should be an understanding of the payoff and future possibilities that will emerge from the project.,It's your job to bridge this gap between the need and the payoff by addressing how the project will be accomplished and how long the project will take.,Thus, a good research plan always bridges the gap between the need and the expected payoff.

你好，我叫SkyBrubaker，我是斯坦福大学的博士后。在这段简短的视频中，我将讨论传达补助金或奖学金申请研究计划的有效方法。研究计划是一份叙述性文件，应提供一组明确定义的目标以及你计划如何实现这些目标。在制定研究计划时，使用特定的目标页面作为路线图可能会有所帮助。在之前的视频中，克里斯塔尔·博瑟姆（KrystalBotham）向你介绍了一系列问题，所有具体目标页面都应解决这些问题。首先，你在项目中提出一个重要问题吗？该项目的总体目标是什么？该项目将具体做什么？该项目的预期收益是多少？研究计划的大部分内容包括总体目标和将要做的事情。其形式是详细的具体收益。但是，你一定不要忘记，你需要传达项目为何重要，以及可以期待什么。因此，详细的研究计划将弥合需求与回报之间的差距。为了灌输这种弥合差距的比喻，让我们考虑一下如何为修建从旧金山到马林的桥梁的提案制定研究计划。要说服资金机构来做这件事，你可能需要解决一些关键问题。首先，需要桥梁还是需要项目？而且，如果有必要，为什么还没有完成呢？是否有任何需要克服的具体障碍？其次，你需要解决项目的细节。该项目将如何完成？这可以分解为其他一些关键问题。具体而言，将使用哪些其他方法和分析？预期的结果是什么？可能出什么问题？又将如何管理呢？如果出现问题，还有哪些替代方法呢？第三，你需要考虑一个项目需要多长时间。最后，你需要讨论预期的回报，以及完成后可能设想的未来方向。回答这些问题将有效地解决这个背景和意义、目标、时间表以及结论和未来方向部分，这些部分可以构成你的研究计划的大纲。因此，现在我们已经有了研究计划的大纲，让我们单独看一下每个部分。首先，让我们来看一下背景和意义部分。在本节中，你需要说明问题的重要性。这可能包括拟议项目的前提、先前发表的研究的优缺点或您的任何初步数据。这将允许您概述项目将要克服的知识差距或技术缺陷。在我们的桥梁类比中，我们可以说，我们将为旧金山和马林之间的探索和商业提供一条新的途径，我们可能会在未来推动桥梁建设领域的发展。简而言之，我想谈谈你的研究项目中的创新。因为许多应用程序都要求提供关于创新的声明。创新可以应用于改进的方法或方法。具体而言，你想描述一下你的提案在之前的研究基础上是如何改进的。这可能包括但不限于方法、技术或实验设计的改进。在我们的桥梁类比中，我们可以说，我们将开发一种用于桥梁建造的新材料，它将彻底改变我们未来建造桥梁的方式。因此，现在我们已经介绍了研究计划的背景和意义部分。下一步是“目标”部分。正如美国国立卫生研究院申请表上的直接说明所描述的那样，你的目标应包括以下内容。一个假设。用于检验这一假设的具体目的和目标。对将要使用的方法、方法和技术的描述。讨论可能出现的问题以及如何管理这些问题。最后是必要时可以使用的替代方法。那么，我们如何才能将这些信息整理成一个有凝聚力的文档呢？好吧，我们可以将“瞄准”部分分成五个部分。介绍性段落、初步数据、方法、预期结果和替代方法。你的介绍应该简短，大约一段。并向审稿人提供关于这一目标重要性的概念性概述。这将包括具体目标、工作假设、假设背后的理由和预期结果。下一节将介绍您的初步数据。此部分的长度可能会有所不同，具体取决于空间限制和您必须提供的初步数据量。它应该对相关文献进行批判性审查。您的初步研究有助于确定项目的可行性。这里提供的数据应该清晰明了，能够在更大的补助金框架之外独立存在。例如，图形图例应清晰且更详细，并提供一些背景和数据解释。通过引导读者浏览所提供的数据，您可以引导审阅者得出结论，即您和项目能够取得成功。在我们的桥梁类比中，我们可以说，我们的新材料已经过强度测试，这表明它适用于我们拟建的桥梁。接下来，您将开发“方法”部分，其中将详细描述实验设计或目标。这应包括对基本试剂和方法的验证。适当描述控制措施及其重要性，将要使用的任何统计分析，以及可以从生成的数据中得出的解释。在本节中，请记住使用诸如“期望”和“可以”之类的强词，避免使用较弱的词，例如希望和尝试。在我们的桥梁类比中，我们可以说，我们提议的材料将在整个施工过程中定期进行测试。而且我们预计它的力量能力将得到验证。您还需要描述您期望从这些实验中获得的结果。通过总结预期的实验结果并提供对数据的解释，特别是你可以从这些结果中获得的直接回报来做到这一点？这是否解决了你想要弥合的知识差距？在我们对施工期间收集的数据进行比喻时，我们可以说，我们的结果证实了该材料符合当前标准，并证明继续工作是合理的。这使我们进入了替代方法，这是“目标”部分的最后一部分。您可以通过突出显示潜在问题来介绍替代方法。例如，如果你没有得到你所希望的预期结果。在我们的桥梁类比中，我们可以说，如果新材料的强度受到质疑，它只会用于桥梁中某些不太重要的部分。因此，这总结了“目标”部分的要求。接下来，我们将看一下您的研究计划所需的时间表、结论和未来方向。时间表是您的提案的一个重要特征，因为它有助于通过证明可行性来弥合需求和预期回报之间的差距。在我们的桥梁类比中，你可以说，在第一年，你期望支撑结构完工，在第二年，你期望表面结构完整，并提供支持当前时间表的数据。您还可以直观地演示项目的可行性或您希望实现的时间表。这可以帮助读者更快地收集可能重叠的多个项目之间的预期时间表。而且它可以为您节省空间。最后，让我们来看看研究计划末尾的结论和未来方向。在本节中，您应该总结预期的结果以及它们将如何弥合当前的知识差距，以及拟议的项目将如何导致该领域的进展。此外，您可以讨论未来的实验或方法，这些实验或方法可能在项目完成后实现。在我们的桥梁类比中，一个关键的障碍已经消除，我们弥合了旧金山和马林之间的差距。我们现在可以探索马林了。此外，随着我们新桥梁技术的出现，有朝一日我们也许能够建造一座通往夏威夷的桥梁。通过这种方式，我们讨论了这座桥梁的即时回报，以及尚未预见的未来回报。通过这种方式，我们将讨论该项目可能实现的即时回报和长期回报。现在，我们已经完成了您的研究计划大纲的关键部分。但是请记住，这些部分基于研究计划的一系列关键问题。例如，从阅读您的提案中可以清楚地看出该项目是必要的。此外，还应了解该项目将带来的回报和未来的可能性。你的工作是通过解决项目将如何完成以及项目需要多长时间来弥合需求和回报之间的差距。因此，一个好的研究计划总能弥合需求和预期回报之间的差距。有关制定研究计划的更多资源，请查看以下内容。谢谢，祝你有美好的一天。