Module 1 - Planning and strategy

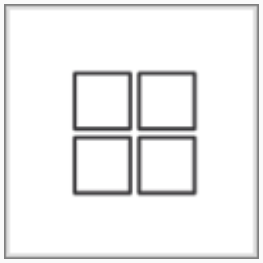
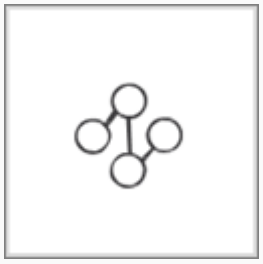
This toolkit is designed for Master Exam Aspirants. There are 8 Modules. Study 2 modules per week to stick to schedule. Technical Parts of applications are depicted in Videos, you can learn more about them from experience League. You can visit Get prep page to understand the contents and anticipate the learning journey.

This is Expert Exam, master exam toolkit Module 1. This module contains 4 sections.

1.1 Target activity types

What does it do?

Activity Type	Details
 Manual A/B Test	Compares two or more experiences to see which best improves conversions throughout a pre-specified test period. For more information, see A/B Test.
 Auto-Allocate	Identifies a winner among two or more experiences, and then re-directs traffic to the winner, increasing conversion as the test runs and learns. For more information, see Auto-Allocate.
 Auto-Target	Uses advanced machine learning to personalize content and drive conversions by identifying multiple high-performing, marketer-defined experiences, and then serving the most tailored experience to visitors based on their individual customer profiles and past behaviors of similar visitors. For more information, see Auto-Target For Personalized Experiences.

Activity Type	Details
 Automated Personalization (AP)	Uses advanced machine learning to personalize content and drive conversions by combining specific offers or messages, and then matching different offer variations to visitors, based on their individual customer profiles. For more information, see Automated Personalization.
 Multivariate Testing (MVT)	Compares combinations of offers among elements on a page to see which combination performs the best for a specific audience. Also, identifies which element of the page best improves conversions throughout a pre-specified test period. For more information, see Multivariate Test.
 Experience Targeting (XT)	Delivers content to a specific audience based on a set of marketer-defined rules and criteria. For more information, see Experience Targeting.

Why are you using this?

Activity Type	Reason
Manual A/B Test	A highly controlled experiment with traffic measurements, split by percentages rather than by a rule, allowing you to analyze the test data, glean insights about your audience, and determine which experience performs the best.
Auto-Allocate	A way to identify a winning experience and adjust traffic allocation to deliver it to visitors as fast as possible, supporting a faster and higher likelihood of conversion.

Activity Type	Reason
Auto-Target	A way to identify the winners among multiple experiences, and then deliver the most appropriate experience to specific visitors. The targeting adapts over time as visitors' interests change, because the algorithm predicts a visitor's propensity for conversion on a certain experience at a certain time.
Automated Personalization (AP)	A way to personalize a set of offers (created or pre-defined, in elements on a single page or across multiple pages) and deliver offer combinations that work the best to attract specific visitors.
Multivariate Testing (MVT)	A way to display multiple offers in multiple elements, and then test the resulting unique experiences concurrently against a specific goal , which helps determine which element variation is the most successful, and also potentially reveal which elements have the greatest positive or negative impact on a visitor's interaction.
Experience Targeting (XT)	Simply a way to target specific content to a specific audience based on a set of defined allocation rules.

What kind of marketer should use this?

Activity Type	The Marketer
Manual A/B Test	Is knowledgeable in stats. Has the time to wait until end of test period to analyze results.
Auto-Allocate	Has a short time frame. Needs to identify best experience and deliver quickly. Wants to be able to "peek" at results as test runs.
Auto-Target	Has several eligible experiences. Wants to match experiences to specific visitors at optimal times based on their dynamic and changing profiles.
Automated Personalization (AP)	Has one or more offers. Wants to create offers combinations that yield optimal personalized experiences for specific visitors across a variety of unique profiles and behaviors.

Activity Type	The Marketer
Multivariate Testing (MVT)	Is knowledgeable in stats. Has one or more offers. Wants to analyze conversion trends relating to page element interactions.
Experience Targeting (XT)	Needs to deliver a specific experience or piece of content to a specific audience.

Statistical details

Activity Type	Details
Manual A/B Test	The test compares each challenger experience to a control experience and then ranks the performance of all experiences, identifying both a winning experience, and a losing experience when compared to the control.
Auto-Allocate	The test produces a statistical guarantee on a true winner right away, and then directs more traffic towards audiences who have a higher likelihood of conversion with that winning experience.
Auto-Target	The optimization mechanism identifies the relevant audience for each experience by showing increases and decreases in lift over time, and before it determines which experience to deliver to which visitor, it is informed by conversions, segments, parameters, and profile scripts. From there, it automatically chooses which algorithm to utilize in order to generate a higher lift and conversion rate.
Automated Personalization (AP)	The optimization mechanism constantly adjusts which experiences are delivered to which visitors based on new visitor behavior and past behaviors of similar visitors, with an offer’s performance being measured against concurrent control groups.
Multivariate Testing (MVT)	The test helps uncover the relative influence that specific elements have on conversion.
Experience Targeting (XT)	The method defines rules that target either a specific experience or a specific piece of content to a specific audience. User can make updates at the experience level.

Benefits and considerations

Activity Type	Benefits	Considerations
Manual A/B Test	A/B Testing allows you to gain a full understanding of how each experience performs, beyond just which experience performs the best.	In an A/B Test, if you look at the test results before the sample size is reached, you risk relying on inaccurate results (you cannot "peek"earlier!). That is because unlike Auto-Allocate, in an A/B test, the traffic distribution remains fixed even after you recognize that some experiences are outperforming others.
Auto-Allocate	Auto-Allocate reduces the cost of a typical A/B test because it has a higher overall conversion rate than a manual A/B test. The conversion rate is higher because Auto-Allocate pushes more traffic to the highest performing experience, meaning you can realize the benefit of that winning experience earlier than the end of the test period (you can peek!).	Auto-Allocate identifies the winner but does not differentiate among the losers. If you need to know how each Experience performed, A/B testing is preferable. The Auto-Allocate feature works with only one advanced metric setting , which is "Increment Count and Keep User in Activity."This means that if you do not want to count repeat conversions, you should use A/B testing instead.
Auto-Target	With Auto-Target, machine learning is applied to any kind of experience, including multi-page experiences. It also allows you to gain the value of Automated Personalization while using the familiar A/B testing workflow.	With Auto-Target, if you want to change the content of your offers often or frequently, the algorithm will need enough time after each change to exploit what it learns and actually deliver that content to the right visitors.

Activity Type	Benefits	Considerations
Automated Personalization (AP)	With Automated Personalization, you can collect all of your offers in one place, and the algorithm simply figures out the best combination of them. You do not need to specify or build individual experiences. Automated Personalization uses the same machine learning algorithms as Auto-Target.	When you combine multiple offers, a combinatorial explosion occurs resulting in the need for a significant amount of traffic. Automated Personalization's algorithm accounts for a large amount of factors; therefore requiring the most amount of traffic. Automated Personalization cannot consume reports in A4T.
Multivariate Testing (MVT)	With Multivariate Testing, you are able to test multiple elements simultaneously.	A Multivariate Test is time consuming , and due to the multiple variables at play, it does not necessarily produce a winning Experience with confidence. It is often challenging to reach the amount of traffic needed to complete the test. Since all Multivariate test experiments are fully factorial, too many changing elements at once can quickly add up to a very large number of possible combinations that must be tested. Even a site with fairly high traffic might have trouble completing a test with more than 25 combinations in a feasible amount of time.
Experience Targeting (XT)	With Experience Targeting, you can quickly act on insights deduced from any activity results. For example, if you ran an A/B test where the challenger did not outperform the control, but the results indicate that a very specific segment of visitors actually converted 4x more with the challenger than they did with the control, then you can use Experience	Experience Targeting does not allow you to control the percentage split of an experience across multiple

Activity Type	Benefits	Considerations
	Targeting to direct the challenger Experience to that particular segment.	

1.2 Multivariate Test overview

Multivariate Test overview

Multivariate Testing (MVT) in Adobe Target compares combinations of offers in elements on a page to determine which combination performs the best for a specific audience, and identifies which element most impacts the activity's success.

MVT overview

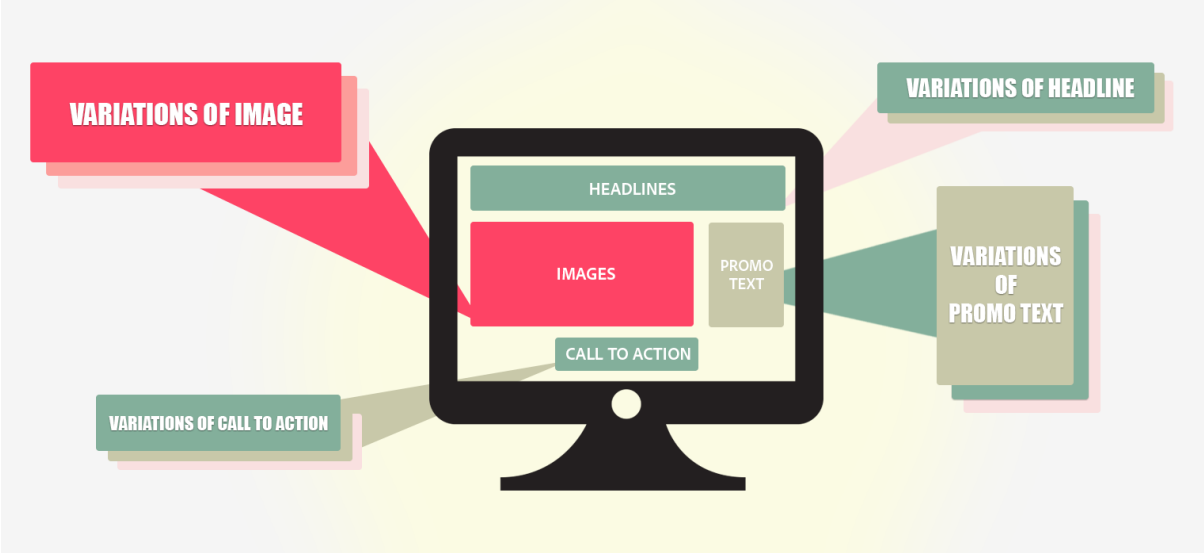
Multivariate testing can help you discover the relative influence specific elements have on conversion, compared to other elements on the page. It can also help you refine a combination of elements that have been shown to be effective.

One advantage a multivariate test provides compared to an A/B test is the ability to show you which elements on your page have the greatest influence on conversion. This is also known as the "main effect." This information is useful, for example, by helping you determine where to place content that you want to receive the most attention.

Multivariate tests also help you find compound effects between two or more elements on a page. For example, a particular ad might produce more conversions when combined with a certain banner or hero image. This is also known as the "interaction effect."

Target uses full-factorial multivariate tests to help you optimize your content. A full-factorial multivariate test tests all of the possible combinations of content with equal probability. For example, if you have two page elements with three offers each, there are nine possible combinations (3x3). Three elements, with two containing three possible offers and one with two offers, provide 18 options (3x3x2).

In Target, each combination is one experience. The multivariate test compares each experience so you can learn which combinations are the most successful. At the same time, data is collected and analyzed to understand how each location and the offers influence the success metric.



Because of the number of combinations that can be generated, a multivariate test requires more time and traffic than an A/B test. The page must receive enough traffic to produce statistically significant results for each experience. To obtain useful results, you need to understand the amount of traffic your page receives and test the optimal number of combinations for the right amount of time to get the required results. Target's Traffic Estimator can help you design a test that works with your traffic. Before you use the Traffic Estimator, you should have good statistics showing the number of impressions and conversions your site normally receives. Consider your traffic levels per day. The more experiences in an activity, the more traffic the activity will need to include or the longer your activity will need to run. If your traffic isn't very high, you should test a small number of combinations; otherwise, the amount of time required to produce meaningful test results might be too long to be useful.

MVT terminology

When setting up a multivariate test, it is useful to understand some basic terminology.

There are multiple terms used in different ways across the industry. This section defines the terms used by Target.

Combination: The content variations created when you test multiple content options in multiple locations. For example, if you are testing three locations, each with three content options, then there are 27 possible combinations (3x3x3). A visitor to your site will see one combination, also referred to as an experience.

Content: The text or image comprising a test variation within a location. In a multivariate test, a number of content options within multiple locations are compared. In MVT methodology, the content is sometimes referred to as a *level*.

Element: A DOM element containing content variations to be tested in the MVT test. See also *Location*.

Location: A specific content area on a page, often contained by a single DOM element. In MVT methodology, a location is sometimes referred to as a *factor*. A full-factorial multivariate test compares all possible combinations of offers in your locations.

When to use MVT vs A/B

Multivariate tests can be used together with A/B tests to optimize your page. Examples of when you might want to use them together include:

- Use an A/B test to optimize your page layout, followed by an MVT test to determine the best content in each element on the page.

  An A/B test can provide important feedback on the layout, and MVT tests excel on testing the content within the elements in your page design. Running an A/B test on the layout before testing multiple content options can help you determine the best layout and the most impactful content.

- Use an MVT test to determine which element is the most important, then follow up with a more focused A/B test on that element.

  When the number of different experiences exceeds five and spans two or more elements, it's a good idea to consider an MVT test before running your A/B tests. The MVT test shows which areas on the page are most likely to improve conversion. These are the elements that a marketer should focus on. For example, the MVT test might show that the call to action is the most important element for meeting your goals. Once you have determined which elements and content are most useful for helping you meet your goals, you can run an A/B test to further refine the results, such as to test two specific images against each other, or comparing the wording or colors of a call to action. By following an MVT test with one or more A/B tests, you can determine the best possible content for the results you desire.

Considerations

- Use an MVT test when you have at least three elements to test. If you have fewer, run a series of A/B tests.
- Select the page elements you believe will have the strongest impact on the results.
- Don't include too many elements or locations in a test. The larger the number, the longer the test duration will be.
- Plan the test design in advance. It's not advisable to edit a test after it goes live and data starts being collected and analyzed.
- It is recommended that elements be independent of each other.

  For example, do not test your layout and content in the same test.

- Plan additional time for QA because of the increase in the number of experiences. You can also use partial-factorial testing to decrease the amount of traffic needed for a multivariate test. For more information, see Partial-factorial testing below:

  Partial-factorial testing

  Target offers full-factorial multivariate testing as a built-in activity option. In statistics, Design of Experiments offers many approaches, or designs, to determine which factors influence results. One such approach is the Taguchi Method for partial-factorial testing. Taguchi enables marketers to make a set of assumptions that reduce the number of permutations of experiences that need to be tested, and in turn decreases the traffic requirements for a

multivariate test. This functionality and testing approach can be leveraged in Target using this offline spreadsheet.

If your team uses other Design of Experiments approaches, you can use this calculation spreadsheet as a reference implementation for custom experiment designs.

As you use the offline calculation spreadsheet, consider the following tips:

- Pick the elements you want to change and the number of versions of each element (3x2, 4x3, and so forth).
- Keep the numbering consistent. For example, if the button is Element 1 and the options are Blue, Green, and Yellow, the blue button is 1-1, the green button is 1-2, and the yellow button is 1-3.
- The offline spreadsheet provides the appropriate number of experiences needed (four for a 3x2, nine for a 4x3, and so forth).
- Build the experiences in the A/B workflow with the Visual Experience Composer (VEC). You can use custom code, edit HTML, WYSIWYG, or any combination.
- After the activity is over (based on the sample size calculator), run results through the spreadsheet to get the other details.

For more considerations and best practices, see Multivariate Test Best Practices.

1.3 at.js functions

List of functions that can be used with the Adobe Target at.js JavaScript library. Visit the page to know the Function column for more information and examples.

1.4 Visitor profiles

isitor profiles in Adobe Target contain information about how your visitors use your pages and other optimized content locations.

If Target is used with other Adobe Experience Cloud solutions, such as Adobe Analytics, Experience Cloud Audiences shares visitor information across solutions.

By default, Target profile information is stored in a single first-party cookie. The configuration can easily be changed to serve third-party cookies as well.

The following sections contain more information:

- Visitor profile lifetime
- Profile attributes
- Category affinity
- Customer attributes
- Real-time profile syncing for mbox3rdPartyID
- Profile and variable glossary