

What are SPSS variables?

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June 23, 2024

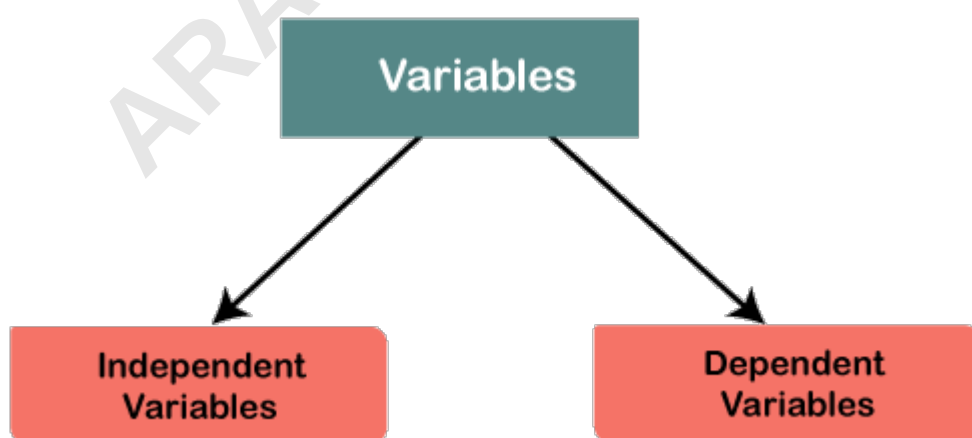
RECOMMENDED CITATION

stats writer (2024). *What are SPSS variables?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=148738>

SPSS variables refer to the characteristics or attributes that are being measured or observed in a particular research study or data analysis using the software SPSS (Statistical Package for the Social Sciences). These variables can be quantitative, such as age or income, or qualitative, such as gender or education level. They play a crucial role in organizing and analyzing data in SPSS, as they help to identify patterns, relationships, and trends within the data. Proper definition and selection of variables is essential for accurate and meaningful results in statistical analysis using SPSS.

SPSS Variables

In this section, we are going to learn how to conceptualize the variables and how to name them in SPSS. The data entry in SPSS begins with understanding the variables like our variable name, how they are defined, and what label we will use to measure them. It's very important that before we start entering our data, we have a conceptualization of our search variable. In SPSS, we have two types of variables, i.e., independent variables and dependent variables.



Apart from them, we should also have like what are the variables, which are playing the role of mediating variables or which are playing the role of moderating variables. The important thing is to conceptualize our variables.

Example 1:

Suppose we are taking a study where we want to see the effect of one variable over another or the relationship between two variables. In an IT study, what exactly leads to good performance. We know that it's hard work that leads to performance. But we also know that relationship is not at that simple. There might be many other variables involved. We are supposed to explore this issue, and we want to just find out the variables that influence the performance of a student.

Now in this study, performance is acting like a dependent variable. Because it is a performance that we want to predict and that we want to estimate based on other variables like hard work. Apart from hard work, we might believe that the age of the subject may also act as an influencer in this variable. The socioeconomic status of the subject might also play a role in the performance

of the student.

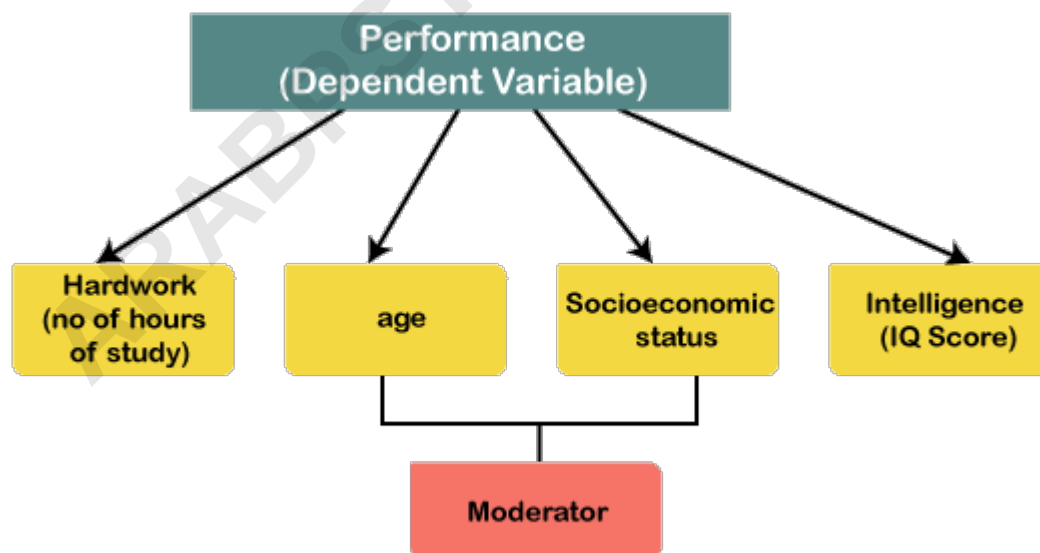
To understand this, we are going to assume two students who are from a higher socioeconomic status. They can access better resources that can help them in performing better. So, we should define all our variables first in our research model, and then we will try to enter our data into SPSS. So, let's take certain variables, for example, hard work is socioeconomic status. Now, if we look at these variables, we will find that there is a bit of ambiguity the way they have been expressed.

For example: what do you mean by hard work, how to measure the hard work. If we have to be more precise, then we have been mention we will measure the hard work in terms of the number of hours of study. It might also affect the performance, but we are not expecting each to affect the performance directly. They might act like a moderator or performance, but not the direct precursor of performance.

So, we want a model in which age and socioeconomic status act like moderators. Moderators are those variables that moderate the relationship between independent variables, and dependent variables mean

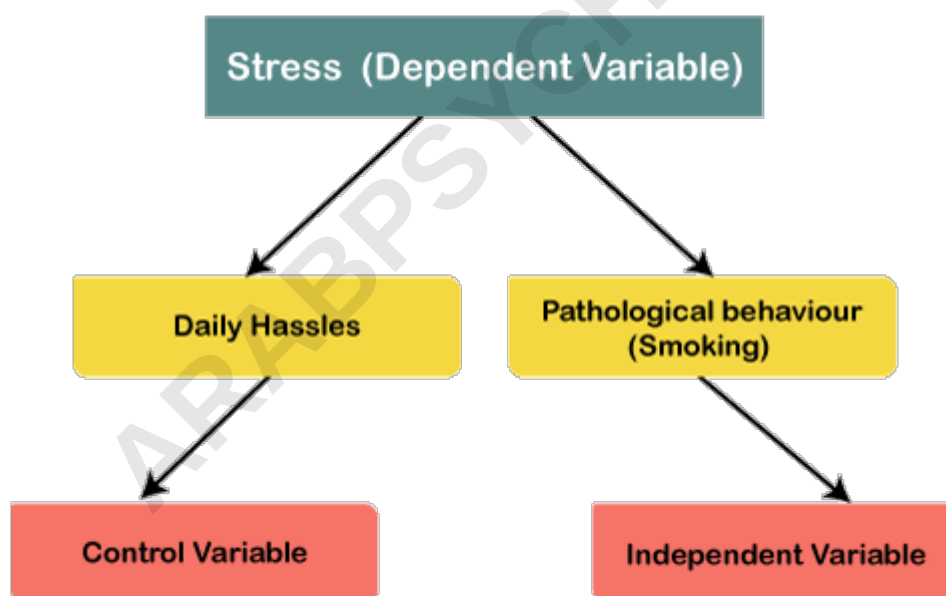
they are significantly going to affect the relationship between these two variables. Apart from moderators, there might be mediators as well as involved in the model, but we are not going to take mediators now.

Now we will take one more important variable that can affect the performance let's call it Intelligence. So, Intelligence might also affect the performance. So, we are expecting a direct influence of Intelligence on Performance. Intelligence is again a way toward how we are going to measure it. So, we can measure Intelligence as IQ scores of the subject. This is how we will define our research model.



Example 2:

Suppose we want to find out what exactly leads to stress. Stress can be caused by problems we can call it daily hassles. Apart from it, stress can cause due to pathological behavior like smoking. Smoking is an independent variable, while stress is a dependent variable. We want to control the effect of this variable called Daily hassles because we know that daily hassles lead to stress. We want to understand that if daily hassles are the same for everyone, what does the influence of smoking on stress is. In this case, we can consider daily hassles as a control variable.



Once we have conceptualized our model, we can start defining our variables. In example 1, the control

variables can be classroom conditions, temperature, or noise.

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