



## Instrument Validity and Reliability Test of Attitude, Subjective Norm, and Intention to Pornography in Urban Students

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### Abstract

The theory of planned behavior (TPB) has been proposed to be applied to the issue of pornography in urban student participants. The study aims to examine the validity and reliability of instrument attitudes, subjective norms, and intentions of students in consuming pornography. The instrument was tested on 1845 students by a self-administered online questionnaire. The collected data is then tested for validity with Pearson product-moment. The item question is valid if the  $r$  count  $>$   $r$  table. Then the variable is reliable if the Cronbach alpha value is more than 0.60. A total of 5 attitude question items, four subjective norm question items, and six intention question items were all declared valid (CI: 95%;  $r$  value  $>$  0.062). While Cronbach alpha values for attitude (0.769), subjective norm (0.676), and intention (0.863). This valid and reliable instrument can measure attitude, subjective norm, and intention on similar targets.

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### Introduction

Pornography is one of negative behavior. According to the dictionary Indonesia, pornography (sometimes abbreviated as "pornography," "prON," or "pornography") is a description of the human body or the behavior of human sexuality openly (explicitly) with the purpose of arousing interest in the lusts (sexual abuse). Pornography is also specified as reading material that is deliberately and solely designed to arouse sexual desire for sex. The emergence of the pornography this behavior correlation between the value of the value of the desire to see pornography with preoccupation pornography, sexual history, compulsive use of the internet and search for the sensation (Hardani et al., 2018) Based on data in 2018, the Indonesian Child Protection Commission stated that 91.58% of 6,000 children had been exposed to pornography. This is because of the exposure that the internet is accessible to adolescents, which ultimately increases the consumption opportunities of various content, including pornography (Prihandini, 2020). Adolescents and pornography are continual issues, along with developments in communication technology. Adolescents in their advancement belong to an aggregation group who risk health problems, including adolescent sexual behavior. According to (Primita., 2018), high school students are entering a challenging adolescent period, which is a crucial stage of the child development period (Suartha, 2021). Adolescents, especially those living in urban areas, have easy access to social media so that they find it easier to access various information, including pornography which could be challenges for urban youth. One of the challenges that might be faced

by urban youth is how to take advantage of information technology that continues to grow to do positive things. On the other hand, the unwise use of technology could harm students, one of which is the dangers of pornography. According to Hutagalung, (2018), data from Google Trends shows that in 2015 Indonesia was a top the ranking for accessing the keywords 'sex' and 'porn' in internet search engines. Therefore, pornography among adolescents is indeed an important issue to be highlighted and explored.

Changes in behavior should be implemented by comprehending the mediator of behavior change. Understanding the mediator makes it easier to design the appropriate behavior change intervention strategy as required. The behavior change theory that is mainly employed to assess the pornography in adolescents especially in urban students is the Theory of Planned Behavior (TPB). Theory of Planned Behavior (TPB), which was developed by Icek Ajzen, (1991), provides a useful theoretical framework for researching human social behavior in various fields. TPB, an extension of the theory of reasoned action (TRA), proposes that attitude toward the behavior, subjective norms, and perceived behavioural control can predict intention, which, combined with perceived behavioral control, can predict behaviour (Cordano & Frieze, 2000)

A questionnaire instrument can be used to assess attitude, subjective norms, behavioral control, and intention as behavior shaper. The TPB Questionnaire (hereafter, the TPB Questionnaire) comprises the dimensions of attitude, subjective norms, behavioral control, and intention answered by choices based on the Likert scale (Dewi et al., 2022) A good questionnaire must have good validity in measuring what needs to be measured. Moreover, the items included in the questionnaire also need to be consistent in measuring such concepts and thereby, the results are reliable as measurements (20). Researcher need develop a conceptual model that includes certain variables for the problems they identify in topics they want to investigate. Then, they collect and analyze the data obtained through a questionnaire to test the conceptual model they have developed. Since most empirical studies are included in this paradigm, in order to achieve beneficial results in the study, the instrument used to measure the survey must have certain qualities. The first of these qualities is the validity of the scale. Validity is concerned with whether the measuring instrument measures the behaviour or quality that it is intended to measure and is a measure of how well the measuring instrument performs its function (SÜRÜCÜ & MASLAKÇI, 2020). Validity, which is defined as the ability of an instrument to measure the properties of the construct understudy is a vital factor in selecting or applying an instrument. Another feature that the scale should have is reliability. Reliability reflects consistency and replicability over time. Furthermore, reliability is seen as the degree to which a test is free from measurement errors, since the more measurement errors occur the less reliable the test (Bruin, 2011). Reliability is not only a feature of the measuring instrument, but it is also a feature of the results of the measuring instrument. According to the current literature, it is clear that the Reliability and validity of the measuring instrument are two indispensable features. Previous research conducted by (Dewi et al., 2022) showed that the Item CVI and the kappa statistics scores were between 0.75 and 1 and 0.72 and 1, respectively. The final version of the questionnaire was resolved based on the panelists' recommendation, the face validity's findings, and the results of the questionnaire reliability assessment. There were 14 items of attitude, 12 items of subjective norms, 17 items of behavioral control, and eight items of intention components with acceptable questionnaire reliabilities. Other research that conducted by (Yue et al., 2022) showed that the reliability of the questionnaire was good ( $\alpha = 0.84-0.94$ ). The principal component analysis was conducted, contribution rates of these factors were moderately high (62.06%–82.35%). The validity was verified through confirmatory factor analysis. All the model fit indices were higher than the acceptable standard, which indicated the construct validity of the TPB questionnaire is good.

This study aims to to examine the validity and reliability of instrument attitudes, subjective norms, and intentions of students in consuming pornography in urban students.

## Methods

In this study, quantitative research methodologies with a cross-sectional design were applied. This study's population consisted of 213,475 students and active students in Semarang City. A sample size of 400 participants was established with an error level of 0,05. Purposive sampling was used to identify participants who matched the inclusion criteria (students and students engaged in Semarang City, aged 15-20 years, and willing to participate in research). This questionnaire was filled out by 1845 students from junior high, senior high, vocational school, and university, guided by an enumerator in each classroom. Before collecting data from individuals under the age of 17, researchers sought their parents for permission to participate in the study by submitting an informed consent statement. All of the questions in the item surveys were created by the researchers based on existing hypotheses. The questionnaire has five questions. Four questions on the subjective norm variable, and six questions on the intention variable. The

attitude components were scored as follows: highly agree (score 0), agree (score 1), not agree (score 2), and strongly disagree (score 3). Similarly, subjective norm and intention are scored in the same category. The research instrument's validity can be proclaimed if each question item in the questionnaire can be used to reveal anything that the questionnaire will measure. If the calculated  $r$  count from the  $r$  table is  $>$ , the questionnaire indications are valid. The value of the  $r$  table for significance level = 5% is 0.062, so if the value of  $r$  is more than 0.062, the question item is valid. Pearson Product Moment analysis was used to assess the validity of the study's instrument (Hasan, 2006). A reliability test on a research instrument is used to verify the dependability of the questionnaire used to collect research data. Cronbach's Alpha analysis was used to conduct the reliability test for this investigation. If a variable has a Cronbach Alpha value more than 0,600, it is termed to be trustworthy or consistent in measuring Anggraini, F. D. P., Aprianti, A., Setyawati, V. A. V., & Hartanto, (2022). The data of the participants is closely and confidentially kept and only used for research requirements. The health research ethics commission of Dian Nuswantoro University granted clearance for this study with the number 331/EA/KEPK-Fkes-UDINUS/XII/2022.

## Results

Most respondents to this study were female (55.3%), with a median age of 16 years (SD: 2,584). The distribution of respondents' education included 23.5% from junior high school, 24.3% from senior high school, 23.7% from vocational school, and 28.5% from universities. They mostly live with their parents (74.2%), and 94.8% are heterosexually oriented.

The validity test conducting between all item of the questions. The following are the results of validity tests that have been carried out using person product moment test.

**Table 1. Results of the Attitude Questionnaire Item Validity Test**

No	R Count Pearson Correlatin	R Table	Note
1	0,766	0,062	Valid
2	0,749	0,062	Valid
3	0,746	0,062	Valid
4	0,790	0,062	Valid
5	0,563	0,062	Valid

Based on table 1 above, based on table 1 above, five question attitude items have been declared valid because the value of R person correlation  $>$  R count ( $n=1845$ ,  $r$  table=0.062  $\alpha=95\%$ ).

**Table 2. Results of the Subjective Norm Questionnaire Item Validity Test**

No	R Count Pearson Correlatin	R Table	Note
1	0,813	0,062	Valid
2	0,768	0,062	Valid
3	0,571	0,062	Valid
4	0,679	0,062	Valid

Based on table 2 above, four question subjective norm items have been declared valid because the value of R person correlation  $>$  R count ( $n=1845$ ,  $r$  table=0.062  $\alpha=95\%$ ).

**Table 3. Results of the Intention Questionnaire Item Validity Test**

No	R Count Pearson Correlatin	R Table	Note
1	0,669	0,062	Valid
2	0,739	0,062	Valid
3	0,770	0,062	Valid
4	0,840	0,062	Valid
5	0,791	0,062	Valid
6	0,814	0,062	Valid

Based on table 3 above, six question intention items have been declared valid because the value of R person correlation  $>$  R count ( $n=1845$ ,  $r$  table=0.062  $\alpha=95\%$ ).

**Table 4.** Recapitulation of Attitude, Subjective Norm, and Intention Questionnaire Items for Validity Test to Pornography in Urban Students

Attitude		
No	Instruction: Each statement is filled with SS (Strongly Agree), or S (Agree) or TS (Disagree) or STS (Strongly Disagree)	Note
	SS                      S                      TS                      STS	
1	I think pornography can relieve stress	Valid
2	By viewing pornography I can learn new things about sexuality	Valid
3	I think watching pornography is normal if not excessive	Valid
4	By looking pornography I feel entertained	Valid
5	I don't care if other people see pornography	Valid
Subjective Norm		
No	Instruction: Each statement is filled with SS (Strongly Agree), or S (Agree) or TS (Disagree) or STS (Strongly Disagree)	Note
	SS                      S                      TS                      STS	
1	My friend thinks that viewing pornography is fun	Valid
2	My friend believes that pornography can make a person more confident in a relationship	Valid
3	Most teenagers my age have seen pornography	Valid
4	I want to look at pornography because of my friend's encouragement	Valid
Intention		
No	Instruction: range 1-7 indicates 1 (totally disagree/agree) and 7 (totally agree/agree) with the statement	Note
	1                      2                      3                      4                      5                      6                      7	
1	I plan to look at pornography someday	Valid
2	After getting information/stories from friends, I intend to watch pornography	Valid
3	When I accidentally came across pornography, I never intended to watch it to the end	Valid
4	After watching pornography, I once planned to watch it again	Valid
5	I have ever intended to watch pornography because of sexual urges (example: wet dreams, during fertile times, etc.)	Valid
6	I intend to watch pornography to satisfy my sexual desires	Valid

The validity test was carried out to assess the level of accuracy of a question and this statement the questionnaire, so that items that are not considered valid can be removed from the questionnaire (Smith & Smith, 2018). In this study, a total of 15 question items for attitude questionnaire, subjective norms and intentions related to pornography among urban students were valid.

**Table 5.** Questionnaire Reliability Test Results

Variable	Cronbach Alpha	N of Items
Attitude	0,769	5
Subjective Norm	0,676	4
Intention	0,863	6

Test the reliability of attitude, subjective norm and intention variables with Cronbach's Alpha value of 0,769 ; 0,676 and 0,863 > 0,600, it can be concluded that the questions for the questionnaire measuring knowledge, attitudes and preventive behavior are reliable or consistent.

## Discussion

Validity and reliability aim to decide whether or not the instrument is well developed and can assess the content component of the phenomenon to be measured. it is essential to make an instrument since the

instrument need to correlate the draft and indicators to be measured. (Nelson, 2003) Valid and reliable instruments are always needed to develop and evaluate health programs based on the social and behavioral science theory of behavior change. A strategic focus on changing people's beliefs underlying target behavior can lead to the development of effective intervention programs. (Nguyen et al., 2015)

In the TPB model, attitudes, subjective norms, and perceived behavioral control are built around the individual's core beliefs. Attitude is composed of a combination of Behavior Beliefs, Strength (beliefs about the results of behavior), and Outcome Evaluation (evaluation of benefits and losses from behavioral outcomes). Subjective norms are believed to be the result of the association of Normative Beliefs Strength (beliefs about how important it is for people to approve/disapprove of the behavior and Motivation to Obey (motivation to obey essential people). Perceived Behavior Control reflects The combination of Control belief Strength (belief about What is possible or prevents the show from That behavior), And felt Strength (perception That Strength from This factor limits or increases the performance from That behavior). (Ajzen, 2010) The limitations of This paper, We only report Which are attitude, subjective norm, dan intention. The TPB Questionnaire (hereafter, the TPB Questionnaire) comprises the dimensions of attitude five questions, subjective norms four questions, and intention six questions.

The results of this study indicate that all questions on each variable have valid results so that the validity of the questions in this study can be used to make measurements related to attitude, subjective norms, behavioral control, and intention to access online pornography among students in urban areas in the city of Semarang. in line with previous research conducted by Dewi to measure the validity and reliability of the dietary behavior of adolescents in a post-disaster area, which resulted in 14 items of attitude, 12 items of subjective norms, 17 items of behavioral control, and eight items of intention components with an acceptable questionnaire reliability. (Dewi et al., 2022)

Another study using the TPB theory was used to measure the Identification of Female Victims of domestic violence; with its results, two components measuring health professionals' attitudes toward the behavior were presented for internal consistency. In each element, items show a high correlation with each other (Cronbach's alpha, both values are more significant than 0.7), confirming that the items are accessed in the same base construct. That direct measures of attitude also show high (Kappa coefficient between 0.61 - 0.80,  $p < 0.001$ ) or very high. (Kappa coefficient  $> 0.80$ ,  $p < 0.001$ ) level of agreement across all items in the test and retest reliability. (Nguyen et al., 2015)

Other studies test the validity and reliability of pornography research using another method, namely Classical Test Theory and Item Response Theory, with results Construct validity, the goodness of fit items, item reliability, generalization validity, and the validity of Korean criteria the PCQ version, initially developed by Kraus and Rosenberg in 2014, evaluated. The results above indicate that the Korean version of PCQ can be used with sufficient validity and reliability in clinical settings. Furthermore, this translation measurement tool can be used for sororities, despite the original PCQ for male students. The cut-off value is -0.098, as theta value suggested for pornography desire tendency decision. This value corresponds to a score of 46 from max 84. Except for item 11, which had an outfit mean square value greater than 2.0 and required revision, the Korean version PCQ is valid in all aspects of item reliability, construct validity, item goodness of fit, generalizability validity, and criterion validity. It may be used in clinical settings in Korea regardless of gender with a specific cut-off value. (Kim et al., 2021)

This research implies that the instrument must be tested for validity and reliability before conducting the research. Validity and reliability increase the value of transparency and reduce opportunities for bias from research results in quantitative research. The results of this study have tested if the research instrument has been tested for its validity and reliability. This instrument can be used to research online pornography consumption among students in urban areas as measured using the TPB theory. For further research, if it is done in age groups and locations in rural areas can be repeated validity and reliability tests.

## Conclusion

The validity test showed that there were 15 knowledge question items ; 5 attitude question items, 4 subjective norm question items and 6 intension question items were valid with a p value  $> 0,062$ . The reliability test showed that all questionnaire were reliable with Cronbach Alpha 0,769 ; 0,676 and 0,863  $> 0,600$ . The limitation of this study is collecting data process by online via whatsapp group.

## Author Contributions

The first author contributes to the analysis of statistical data. At the same time, the second author and third authors contributed to the writing of some manuscripts. Furthermore, the fourth and fifth authors contribute to data collecting and cleaning data.

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## Institutional Review Board Statement

The study was carried out with the approval of Universitas Dian Nuswantoro's research ethics committee. The presented research protocol passed the ethical test under seven WHO 2011 guidelines. The research ethics commission approved this study with the number 331/EA/KEPK-Fkes-UDINUS/XII/2022.

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## Conflicts of Interest:

The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

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