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IPPR Research Report 9

Media Usage and Political Knowledge in Namibia: A Research Experiment Among Students

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The mass media remains one of the most frequently used tools to inform and educate ordinary citizens about matters political. One key argument for having a free and vibrant media in a democracy states that citizens have a right to be informed about matters impacting on their daily lives. This information is crucial when making political choices, and it is often stated that an informed choice is a better choice. In young democracies, the media is also considered a tool for educating the citizenry about their polity; what is consists of, what its functions are and what its impact is. It is through the media that citizens learn about new institutions, policies and legislation. This experimental study finds that students are not big consumers of political, civic and economic information presented by the media. They prefer information about social issues and entertainment. When they do consume news material, they prefer it to be local content to international content. Radio and TV are the media types most frequently used and the Internet the least frequently used. Interest in TV is highest followed by Newspapers and Radio. Trust in The Namibian is highest among newspapers, and so is trust in the national broadcaster's daily news for TV. Trust in the national broadcaster's radio service is highest followed by trust in the campus radio station. Students are more likely to visit the web sites of the Namibian government and Parliament than those offered by political parties and NGO's when looking for socio-political and economic information.

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A study of this nature is ambitious. Given that experimental designs require great control over the respondents, their exposure and their environment, studies such as this one requires significant financial resources and technical skills. A number of organizations and individuals all contributed significantly to the successful execution of this study. Dr. Hermann Wasserman and Prof. Arrie de Beer from the Department Journalism at the University of Stellenbosch provided the much needed expertise and experience for the design of the various media interventions and mock-ups and their inputs into the overall conceptual design of the project were invaluable. Their participation in this project was made possible by the financial contribution of the United States of America Embassy in Windhoek that covered travel and accommodation costs as well as honorariums.

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1. Introduction

The mass media remains one of the most frequently used tools to inform and educate ordinary citizens about matters political. One key argument for having a free and vibrant media in a democracy states that citizens have a right to be informed about matters impacting on their daily lives. This information is crucial when making political choices, and it is often stated that an informed choice is a better choice. In young democracies, the media is also considered a tool for educating the citizenry about their polity; what is consists of, what its functions are and what its impact is. It is through the media that citizens learn about new institutions, policies and legislation. Every so often media campaigns are launched to address some specific socio-political issues. These typically include such diverse matters such as corruption, human rights abuses, domestic violence, HIV/AIDS, poverty, environmental decay and general elections. These campaigns usually have at least two broad objectives: to inform and raise awareness about a specific issue, and to educate the mass public about the issue. Media campaigns of this nature could take different forms: advertisements, advertorials, open letters and pre-scripted media briefings. Typically they also involve all popular media types: radio, television, newspapers and of late, the internet.

Until now, no study has attempted to measure the impact of the media's role as informer and educator in Namibia. As a result, we know little about Namibians' cognitive responses to the media and a number of questions remain unanswered. These include:

- How do Namibians use the media? What do they read, listen to, watch or surf and how often do they do this? Do they have strong preferences for specific types of media and/or types of information, programs, reports and information?
- Are media usage patterns shaped or influenced by socio-biographical factors such as gender and age?
- Are certain types of media more effective in transferring political and civic knowledge than others? If so which ones?
- How long do Namibians recall the information received through the various types of media? Are changes in knowledge levels short, medium or long-term changes?
- Are changes in knowledge levels shaped in any significant manner by socio-biographical factors or media usage patterns?

These questions are answered in this report by means of an experimental research design consisting of four randomly selected groups of media users, and a control group. Students enlisted at the University of Namibia (UNAM) were selected as the sample population. A total number of 510 students participated in the experiment.

2. Methodology

This study concerns itself with the knowledge effects of the media. More specifically, the central aim of the study is to understand how Namibians learn about political and civic issues from the news media. An experiment is used to determine how Namibian students acquire information and knowledge through various types of media, and for how long they can recall what they have learned. With this study we should thus learn about the influence of the news media on citizens' political knowledge. Whilst it is commonly accepted that the role of the media is to 'inform, entertain and educate', we lack adequate understanding of how citizens use the media, and what the cognitive outcomes from their interaction with the media are. Given the fact that news media is extensively used for civic and political campaigns, our study would provide insights into how effective these campaigns are likely to be, and how they could be improved.

The use of experimental research designs in media studies is over 50 years old. Their aim is usually to study the quantifiable effects of various types of media, especially television (Gunter 2000). Experiments are considered the best method to study causal relationships (Gunter 2000: 29). Other scholars (see for example Norris and Sanders 2003) regard experimental designs to be the best and most feasible method for measuring the effects of political learning specifically. On the positive side, experiments allow the analyst full control over

the stimuli (or messages) that respondents see and hear, and they allow the analyst to measure shifts in knowledge levels before and after the actual exposure. The analyst is thus better positioned to make statements about the causal effects of the exposure to media messages. The representative nature of experiments do not stem from the overall sample size, but from the fact that respondents are randomly allocated to the various groups. On the negative side, experimental designs have been criticized for taking place in artificial environments, for generating experimental effects (subjects responding to the fact that they are being studied), and for generating experimenter bias (the researcher unwittingly providing the subjects with clues about the purpose of the study) (Gunter 2000:35-37). To reduce the impact of these negative factors this study adopted a number of strategies. Firstly, the study was located on-campus, in settings were students would engage in such activities during the course of a normal day. Secondly, since we did not need to observe participant behavior, students were left alone during the actual experiment with only technical assistance provided when required. The technical assistance provided included: distributing and collecting the questionnaires, helping respondents to fill in logbooks, and help with the technical aspects of equipment used. Finally, all contact between the experimenter and respondents were eliminated. Administrative and other staff was not informed about the purpose of the study, and neither were respondents. This eliminated the possibility of respondents being informed, directly or indirectly, about the purpose of the study.

We have used the classic experimental design for this study.[2] Table 1 below illustrates the composition and flow of this design as used for this study.

Table 1: Research design layout

Group	Pre-test	Exposure to media	Post-test 1	Post-test 2	Post-test 3
Control	Yes	No	No	Yes	Yes
TV*	Yes	Yes	Yes	Yes	Yes
Radio*	Yes	Yes	Yes	Yes	Yes
Internet*	Yes	Yes	Yes	Yes	Yes
Newspaper*	Yes	Yes	Yes	Yes	Yes

Note: (*) Denotes experimental groups

Although Norris and Sanders (2003) caution against the limitations of experiments using small and very specific samples (such as university students) we had no choice in doing exactly that. We decided to use students for in the Namibian society it is mostly the only group that has both access to and experience with all four types of media under investigation here (Radio, TV, Internet and Newspapers). Therefore, to avoid having to drop one or more media types from the analysis, we decided to limit the sample. Secondly, given the fact that students form but a small section of the Namibian society, distributed over a small number of educational institutions, we felt comfortable with our overall sample size of slightly more than 500 respondents. By drawing our sample from the only university in the country we eliminate a number of institutional differences that could contaminate our findings and ensure a greater degree of environmental homogeneity.

During the sampling phase we randomly allocated the same number of students to each of the four media groups (see Table 2 below). The allocation was made from a scrambled list of all enrolled students supplied by the Dean of Students. The same process was used to compile a fifth group, the control group. Once selected, students were informed of their inclusion in the study but not about the specific objectives or subject matter. The individual tests were conducted on-campus under conditions and in facilities similar to those the students frequently use for media access (e.g. communal TV and reading rooms, public and communal computer terminals). Each of the respondents in the five groups, were handed a questionnaire to complete before being exposed to the specific media message. After 30 minutes of exposure to their mock-ups, they were required to complete a second questionnaire. Project managers then made an appointment for two further follow-up interviews approximately one week apart. Control group members were not exposed to any media messages, but re-interviewed after one week and two weeks.

Table 2: Sample breakdown by gender

[2] This is sometimes referred to as a *pre-test – post-test with control group* design (Gunter 2000:32, Campbell and Stanley 1963).

		Media type					
		Newspaper	TV	Internet	Radio	Control	Total
Male	Count	54	38	55	50	38	235
	%	51.4%	37.3%	55.0%	49.0%	38.0%	46.2%
Female	Count	51	64	45	52	62	274
	%	48.6%	62.7%	45.0%	51.0%	62.0%	53.8%
Total	Count	105	102	100	102	100	509

Given our interest in what and how students learns from the media, the section of the questionnaire that deals with political and civic knowledge took the form of a knowledge test consisting of 21 multiple response items. Although the literature points to the fact that most respondents frequently fail such tests, we are less concerned about the consequences of their lack of knowledge and more about whether knowledge increases after exposure to news media. Thus, whilst recent studies shifted to measures of 'relative knowledge' (e.g. information shortcuts such as ideology) or 'practical knowledge' (e.g. information about past government performance and information about past policy proposals) we remain with knowledge tests. As we do not investigate the consequences of (limited or extensive) political knowledge, but simply focus on actual levels of knowledge, a test is sufficient.

The 21 items that constitutes the knowledge test include items about:

- local and international government leaders,
- key local political party personalities,
- the provisions of the Namibian constitution,
- key democratic institutions,
- key policies, and
- key regional institutions and regimes to which Namibia belong.

The answers to each of the questions were included in each of the media mock-ups, and in theory at least, each respondents had access to those answers during the 30 minutes intervention. Respondents received three to four possible response options to each item, which in theory at least, should prevent respondents from simply guessing the answers, as is often the case with simple 'yes/no' options.

Each of the mock-ups was designed to match the existing 'real' media for content, layout, format and overall appearance. For example, for the TV news mock-up we used the existing NBC jingle and logo, used a backdrop similar to that of the NBC news studio and a freelance news anchor frequently used by the NBC. For the newspaper, we used the same layout and composition as used by the three most popular newspapers, but changed the title to make sure that we do not attract the biases associated with the existing papers. We informed respondents that this is a new newspaper preparing for a launch in the Namibian market. All the reports were drawn from existing papers. These reports also formed the basis for the news items placed on the mock-up website. We modelled the website layout on one of the most popular news websites, News24.com. The items for the radio broadcast were imported into the format of a popular news journal program. All the TV interviews and features were included in the radio program. Respondents were not given free access to the Internet to prevent them from surfing sites other than our own. Also, all TV and radio access were limited to our own and respondents could not change channels. Respondents were allowed to use refreshments during the period of exposure, as they would normally do when browsing through the media. Although respondents were informed that they would form part of a media study, they did not know the contents and purpose of the study until after they completed the last round of interviews. Question order was changed slightly after the first interviews to reduce the changes that respondents would recognize the questionnaire. All respondents received a small token of appreciation upon completion of their participation.

3. Findings

3.1 Media Usage

3.1.1 Interest in media coverage

Table 3 shows that overall interest in all three types of media is quite high with more than 70% of all students showing a high level of interest in all three media types. Interest in TV is highest (83.6%) followed by Newspapers (79.6%) and Radio (73.1%).

Table 3: Interest in three media types

	Interest: Newspapers		Interest: Television		Interest: Radio	
	Count	%	Count	%	Count	%
Not at all	1	.2%			1	.2%
A little	19	3.7%	18	3.5%	29	5.7%
Some what	79	15.5%	63	12.4%	98	19.2%
Quite a lot	236	46.3%	211	41.4%	218	42.7%
Very much	170	33.3%	215	42.2%	155	30.4%
Missing	5	1.0%	3	.6%	9	1.8%
Total	510	100.0%	510	100.0%	510	100.0%

On average, men are slight more interested in newspapers than women but not significantly so ($F=0.67$; $p>0.5$). Women on the other hand is significantly more interested in TV ($F=6.057$; $p<0.5$) and Radio ($F=13.97$; $p<.01$). Interest in the various media types is positively correlated, meaning that someone who is interested in Radio would also be interested in TV and Newspapers. This inter-correlation holds for three media types. Age and the number of years at university do not have any significant influence on interest in the media of any type.

3.1.2 Newspaper usage

Newspapers have the advantage that it is relatively cheap and is to access either by one self, through personal networks or through institutions such as libraries. They are also durable and could be read at any time and at any place. Therefore, one is less likely to "miss out" on important news, as is the case with TV and to some extent Radio when one is not "tuned in" at the appropriate time.

Table 4 shows that less than 1% of student never reads a daily newspaper. Some 45% reads one three or more days a week, and almost 30% reads one more than four times a week – i.e. every day.

Table 4: Frequency of daily newspaper usage

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	2	.4	.4	.4
Once a week or less	79	15.5	15.5	15.9
Two days per week	74	14.5	14.5	30.4
Three days per week	127	24.9	24.9	55.3
Four days per week	77	15.1	15.1	70.4
More than four days per week	151	29.6	29.6	100.0
Total	510	100.0	100.0	

By far the most frequently read newspaper is the The Namibian. It is the newspaper most often read by almost 98% of the students. The second most popular paper is the New Era (40.6%) and third most popular is Die Republikein (17.8%).

Newspapers are not only a source of information and news; they also carry stories and articles that are purely aimed at entertaining their readers. Thus, to measure the frequency with which newspapers are read does not reveal the type of information students are interested in and paying attention to. For our purposes here, we need to know these additional two dimensions if we were to understand how the various media types shape and influence their civic and political knowledge. A third dimension that might have an impact on knowledge levels is the extent to which readers trust newspapers.

Table 5 shows that students have biggest interest in articles with local content (Namibian stories). Almost three-in-four are very interested in these local stories. The second most popular item is social issues (53%) and third most popular is sports stories. Articles about Africa are more popular than those about America and Europe: only 14% of students are very interested in what happens on these continents. There is some degree of irony here, given the fact that most Namibian newspapers make extensive use of foreign stories drawn from 'the wire' to fill vacant space. Among our respondents the demand for such stories appears to be modest and in some cases quite low.

Table 5: Interest in specific types of reports

	Not interested at all	Not very interested	Somewhat interested	Very interested	Missing	Total
Interest: Sports	10.4%	27.6%	24.7%	36.7%	.6%	100.0%
Interest: Social issues	.8%	7.3%	37.8%	53.5%	.6%	100.0%
Interest: African News	2.9%	19.2%	44.5%	31.8%	1.6%	100.0%
Interest: European and American News	6.5%	36.3%	40.8%	14.3%	2.2%	100.0%
Interest: Namibian News	.8%	3.9%	20.2%	73.9%	1.2%	100.0%
Interest: News –Rest of the world	3.1%	18.3%	49.3%	28.1%	1.2%	100.0%

Interest is one important dimension for assessing the potential impact of the media on knowledge levels. Another is the amount of attention a reader/viewer allocates to specific issues or reports. Table 6 below reports on the amount of attention that readers allocate to specific types of newspaper stories. There is a clear preference for stories other than those dealing with policy issues (politics and economics) and only slightly more than one-in-four respondents followed election stories very closely. On the other hand, social stories (58%) and entertainment (45%) received much greater attention. This suggests that students read newspapers more for their entertainment value than for the information about public policy. The fact that they pay less attention to political and economic issues might also have a significant negative effect on the amount of civic knowledge they accrue from newspapers.

Table 6: Attention to specific types of newspaper stories

	None	A little	Some	I read it closely	I read it very closely	Missing	Total
Attention: Economy	9.8%	28.2%	30.4%	18.8%	11.0%	1.8%	100.0%
Attention: Politics	5.5%	16.9%	26.3%	27.5%	22.5%	1.4%	100.0%
Attention: Elections	6.7%	18.0%	18.6%	27.5%	27.6%	1.6%	100.0%
Attention: Human rights	1.8%	10.2%	20.8%	32.9%	33.1%	1.2%	100.0%
Attention: Social issues	.6%	2.9%	10.2%	27.5%	57.5%	1.4%	100.0%
Attention: Entertainment	1.2%	10.2%	18.2%	24.3%	44.9%	1.2%	100.0%
Attention: Sports	9.6%	22.4%	19.6%	17.5%	30.6%	.4%	100.0%

It is unlikely that respondents would learn much from sources that they regard as untrustworthy. Table 7 below shows the extent to which specific newspapers are trusted to report truthfully. It shows that The Namibian is not only the most frequently read newspaper it is almost the most trusted. Close to 38% of its readers trust it always, and close to 48% trust it nearly always. Almost 55% of New Era readers trusted the paper nearly always or always. The least trusted newspaper is the Allgemeine Zeitung. Almost 17% never trusts this paper.

Table 7: Trust in newspapers

	Never	Almost never	Somewhat	Nearly always	Always	Missing	Total
Trust: The Namibian	.2%	1.0%	12.5%	47.5%	37.8%	1.0%	100.0%
Trust: Namibian Economist	6.9%	3.5%	22.5%	25.3%	13.9%	27.8%	100.0%
Trust: New Era	2.4%	6.7%	24.9%	33.3%	21.2%	11.6%	100.0%
Trust: Die Republikein	8.6%	8.8%	24.9%	24.3%	9.0%	24.3%	100.0%
Trust: Allgemeine Zeitung	16.9%	12.4%	18.4%	9.0%	1.8%	41.6%	100.0%
Trust: Namibia Today	8.0%	8.2%	24.1%	16.7%	10.6%	32.4%	100.0%
Trust: Windhoek Observer	9.8%	8.0%	19.4%	22.0%	15.5%	25.3%	100.0%

Note: The large numbers of missing responses is a reflection of readership. Those who did not read a specific paper did not answer the question. They are included in the 'missings'.

3.1.3 Television Usage

Television is more difficult to access than newspapers and is often more costly for the individual. It requires the purchasing cost of a TV set and an annual licence fee. Collectively it is less costly, and most students would probably have access to one either through the university when they live on-campus, or off-campus through personal networks. TV broadcasts, as is the case with radio, has limited durability and requires the viewer to present at specific times for specific broadcasts.

Table 8: Frequency of TV usage

	Frequency	Percent	Valid Percent	Cumulative Percent
None	2	.4	.4	.4
One day per week	14	2.7	2.7	3.1
Two days per week	13	2.5	2.5	5.7
Three days per week	29	5.7	5.7	11.4
Four days per week	45	8.8	8.8	20.2
Five days per week	53	10.4	10.4	30.6
Six days per week	25	4.9	4.9	35.5
Every day	327	64.1	64.1	99.6
Missing	2	.4	.4	100.0
Total	510	100.0	100.0	

According to Table 8 almost two-in-three respondents watch TV on a daily basis. Less than 1% do not watch TV at all. Collectively almost 80% of student watch TV five days a week or more. The average student watches between three and four hours of television. Table 9 shows that approximately 13% spend more than six hours per day watching TV.

Table 9: Average Daily Exposure to TV (Hours watched)

	Frequency	Percent	Valid Percent	Cumulative Percent
None	2	.4	.4	.4
One or less	42	8.2	8.3	8.6
One to two hours	85	16.7	16.7	25.3
Two to three hours	106	20.8	20.8	46.2
Three to four hours	95	18.6	18.7	64.8
Four to five hours	50	9.8	9.8	74.7
Five to six hours	62	12.2	12.2	86.8
Six to seven hours	28	5.5	5.5	92.3
Seven to eight hours	13	2.5	2.6	94.9
More than eight hours	26	5.1	5.1	100.0

Total	509	99.8	100.0	
System Missing	1	.2		
Total	510	100.0		

The fact that most students have access to TV and the fact that they are exposed to TV on average between three and four means that the medium of television must be regarded as one of the most important medium to reach and inform young Namibians.

When asked about the specific news programme most frequently exposed to (see Table 10), some 35% of student mentioned that they always watch the public broadcaster's national news bulletin. A further 30% watch it very frequently. More than 50% watches the investigative programme, Open File, either very frequently or always. News through international agencies are less frequently watched – almost 36% never watches SABC Africa and 44% never watches Sky News. The very early morning breakfast TV show is the least frequently watched show with almost 85% watching it either seldom or never. From Table 8 it appears also as if 'pure' news broadcasts (e.g. NBC National News) is more frequently watched than current affairs programmes (e.g. Talk of the Nation, NBC News Journal and Open File).

Table 10: Frequency of exposure to specific news programmes

	Never	Seldom	Quite frequently	Very frequently	Always	Missing
NBC Breakfast TV	59.2%	26.9%	6.5%	2.4%	3.1%	2.0%
NBC National News	2.4%	9.2%	22.0%	30.4%	35.5%	.6%
Talk of the Nation	10.0%	33.1%	28.0%	15.3%	12.9%	.6%
Open File on NBC	6.3%	19.0%	21.8%	24.7%	27.1%	1.2%
SABC Africa	35.5%	30.2%	16.7%	9.4%	5.1%	3.1%
CNN	8.4%	29.2%	29.2%	20.8%	11.0%	1.4%
Sky News	44.3%	27.5%	14.3%	6.5%	4.3%	3.1%
NBC News Journal	16.5%	28.4%	21.6%	20.6%	12.0%	1.0%

With regard to the amount of attention students' pay to specific themes, Table 11 shows that social issues (e.g. health, crime, education) and entertainment are the two themes that students watch most closely. About one-in-three students pay only a little or no attention to reports on the economy. Other themes that attract substantive attention include: human rights issues (35%), sports (30%) and the elections (27%).

Table 11: Attention to Specific Themes- TV

	None	A little	Some	Watch it closely	Watch it very closely	Missing
The economy	8.2%	25.7%	29.2%	22.2%	14.1%	.6%
Politics in general	4.5%	13.1%	32.5%	27.8%	21.8%	.2%
The elections	3.5%	17.3%	23.9%	28.2%	26.7%	.4%
Human rights	1.4%	9.8%	23.5%	29.6%	34.9%	.8%
Social issues	.4%	3.5%	13.0%	28.3%	53.4%	1.4%
Entertainment	2.0%	5.9%	18.0%	25.3%	48.0%	.8%
Sports	8.8%	21.6%	23.1%	16.1%	30.0%	.4%

Students were also required to indicate their interest in various types of television programmes. These trends appear in Table 12 below. Perhaps surprisingly, most students indicated a strong interest in Namibian news (69%). The fact that entertainment programmes are collectively most popular is perhaps surprising. Almost 60% of students are very interested in movies on TV; just more than half (53%) are very interested in reality shows; and about 40% show strong interest in soap operas.

Table 12: Interest in specific types of TV programmes

	Not interested at all	Not very interested	Somewhat interested	Very interested	Missing
Sport	10.6%	27.1%	25.1%	36.7%	.6%
Soap operas	14.5%	18.8%	24.7%	40.2%	1.8%
News on Africa	1.0%	19.4%	50.8%	28.4%	.4%
News about Europe and America	5.9%	35.7%	42.5%	14.5%	1.4%
Namibian news	.2%	5.3%	24.7%	69.2%	.6%
Movies on T V	1.0%	9.6%	29.0%	59.2%	1.2%
Documentaries	7.8%	22.7%	45.9%	21.2%	2.4%
Reality shows	5.1%	12.7%	27.8%	52.9%	1.4%

A final aspect of TV usage deals with trust in TV coverage. Students were asked to indicate the extent to which they trust certain types of TV reports. These are listed in Table 13 below.

Table 13: Trust in TV Programmes

	Never	Almost never	Somewhat	Almost always	Always	Missing
Trust: NBC Breakfast	17.6%	12.0%	24.5%	18.2%	10.0%	17.6%
Trust: NBC National News	.2%	1.4%	11.4%	34.9%	50.6%	1.6%
Trust: Talk of the Nation	1.2%	4.5%	22.5%	32.4%	35.1%	4.3%
Trust: Open File	1.2%	3.3%	13.1%	28.2%	50.4%	3.7%
Trust: SABC Africa	12.2%	7.6%	26.3%	23.3%	16.5%	14.1%
Trust: CNN	3.1%	5.1%	21.2%	32.2%	34.3%	4.1%
Trust: Sky News	14.5%	8.6%	21.0%	20.6%	17.1%	18.2%
Trust: NBC News Journal	3.1%	4.9%	19.0%	30.6%	34.1%	8.2%

NBC News and Open File are the two programmes most trusted by viewers. In both cases half of all respondents indicated that they always trust these programmes. Least trusted are Sky News and NBC Breakfast Show. Almost 18% of respondents never trust the Breakfast Show and almost 15% never trust Sky News. This is perhaps not too surprising given the fact that these two programmes are also the ones respondents are least likely to watch.

3.1.3 Radio Usage

Radio is the media types that most Namibians across the country have most access to. Radio also predates television in the country and as a result, most students would have grown up in home where radio was the main, if not only, source of information and entertainment. In addition, radio is a much cheaper form of media than TV. As a result their socialisation with radio might predict higher radio usage than TV usage among the respondents. On the other hand, being younger and with more exposure to various media types, TV as the more modern medium might be more attractive, especially in an environment where access is relatively easy and less costly (e.g. on campus, in dormitories etc.).

Interest in radio is high with some 75% of all respondents indicating that they are either interested very much or quite a lot in what is broadcasted over the radio. This is slightly less than the overall interest in TV (almost 84%). Table 14 shows that two-in-every-three respondents listen to the radio every day and that around 10% listen to the radio two days per week or less. This means that slightly more respondents listen to the radio every day than watch TV every day.

Table 14: Frequency of radio usage

	Frequency	Percent	Valid Percent	Cumulative Percent

None	6	1.2	1.2	1.2
One day per week	17	3.3	3.3	4.5
Two days per week	32	6.3	6.3	10.8
Three days per week	46	9.0	9.0	19.8
Four days per week	20	3.9	3.9	23.7
Five days per week	27	5.3	5.3	29.0
Six days per week	19	3.7	3.7	32.7
Every day	343	67.3	67.3	100.0
Total	510	100.0	100.0	

The average student spends between five and seven hours per day listing to the radio. As such most students have prolonged exposure to radio every day, almost double that of TV. The potential of radio as a civic and political learning tool or an instrument for political and civic information transfer is thus quite substantial, but likely to be tempered by the types of broadcasts respondents listen to. For example, six hours of listing to music is unlikely to have any impact on political and civic knowledge. Furthermore, the actual radio station that respondents listen to would also be vital. Some radio stations are more entertainment oriented whereas others four more one political and civic content. Commercial, privately owned radio stations are typically more entertainment oriented compared to the state broadcaster, which is likely to have a more civic mandate.

Table 15 shows that with the exception of the campus radio station, UNAM Radio, most respondents do not listen to commercial radio stations all that much. In fact more than half of all respondents never listen to Radio Kudu (51.2%), Radio Cosmos (56.5%), and Channel Seven (53.7%). In sharp contrast well over seven-in-ten listen to Radio Unam (75.5%) and more than half (55.7%) listen to NBC Radio very frequently or always.

Table 15: Frequency of listing to radio stations

	Never	Seldom	Quite frequently	Very frequently	Always	Missing
Radio Kudu	51.2%	33.1%	7.5%	2.2%	.8%	5.3%
Radio Wave	30.6%	28.0%	19.8%	10.0%	7.3%	4.3%
Radio Unam	1.4%	7.6%	13.7%	39.4%	36.1%	1.8%
NBC Radio	5.7%	14.9%	21.6%	24.3%	31.4%	2.2%
Radio Cosmos	56.5%	21.2%	8.8%	3.7%	3.1%	6.7%
Channel Seven	53.7%	22.0%	10.0%	6.5%	3.1%	4.7%
Radio Ninety-Nine	21.2%	30.4%	22.5%	14.9%	4.9%	6.1%

In theory at least this suggests that pure entertainment radio appears to be less popular among students. It also shows that commercial radio stations are less likely to have a significant impact on listeners' civic and political knowledge than community radio (UNAM Radio) and the public broadcaster (NBC). There are two possible explanations for this: 1) commercial radio stations are focused on entertainment and thus have the 'wrong' content; and 2) the average student are not frequently enough exposed to these stations – they prefer either community radio or the public broadcaster.

The fact that respondents prefer the public broadcaster and the campus radio services does not necessarily mean that they automatically prefer the civic and political content over and above the entertainment contents offered by these services. Two additional factors would have a crucial impact on the effectiveness of radio services: the contents that respondents have an interest in; and the type of contents that they pay attention to.

Table 16 shows the interest levels of respondent in selected radio themes. Music (79.4%) and news about Namibia (63.5%) are the two themes that respondents are most interested in. Phone-in programs also attract substantial interest (41%). On the other hand, respondents are less interested in News about Europe and America (11.6% very interested), News about Africa (24.1%) and talk shows (almost 30%).

Table 16: Interest in specific themes - Radio

	Not interested at all	Not very interested	Somewhat interested	Very interested	Missing
Interest : Sports	15.1%	26.7%	24.9%	32.0%	1.4%
Interest: Talk shows	4.9%	19.6%	44.5%	29.6%	1.4%
Interest: News Africa	4.5%	23.1%	46.3%	24.1%	2.0%
Interest: News Europe and America	11.6%	36.3%	38.6%	11.6%	2.0%
Interest: News Namibia	2.0%	6.3%	26.7%	63.5%	1.6%
Interest: Music	.2%	4.7%	14.3%	79.4%	1.4%
Interest: Phone-in Programs	4.3%	16.5%	35.9%	41.0%	2.4%

We have established that students prefer either the campus-based community radio station or the public broadcaster to the commercial, privately owned radio stations. Table 16, however, suggests that this is not a single contents issue entirely, as most students are very interested in both the entertainment (music) and the civic and political (news about Namibia) aspects of radio broadcasts. Without more research on the different contents of the various radio stations, we are not able to submit any clear conclusions on why some stations are preferred over others. What we can say though is that the campus radio station and state broadcaster is potentially more relevant to civic and political knowledge, as more students listen to them and that they carry more appropriate content. However, their impact is likely to be smaller than perhaps expected because students who listen to these stations are more interested in the entertainment aspects than the civic and political news aspects.

When asked about the amount of attention paid to specific radio themes, the pattern is largely the same as for TV and Newspapers (Table 17). Most attention is paid to social issues followed by entertainment. Sport and the economy are the two themes students are paying least attention to.

Table 17: Attention paid to selected themes - Radio

	None	A little	Some	Listen closely	Listen very closely	Missing
Attention to: Economy	10.8%	27.5%	27.6%	20.6%	12.4%	1.2%
Attention to: Politics	5.3%	16.9%	26.3%	31.0%	18.8%	1.8%
Attention to: Elections	6.1%	18.2%	21.6%	26.1%	26.3%	1.8%
Attention to: Human rights	3.3%	9.0%	24.3%	29.0%	33.1%	1.2%
Attention to: Social issues	1.8%	3.7%	13.9%	30.4%	48.6%	1.6%
Attention to: Entertainment	1.2%	8.2%	16.3%	26.1%	46.7%	1.6%
Attention to: Sport	12.2%	21.0%	19.2%	15.1%	31.2%	1.4%

Trust in radio stations (table 18) reflects usage patterns: the two radio stations that are most frequently used are also most trusted. The public broadcaster (79.8%) and campus radio station (62.9%) are trust by the majority almost always or always. The lowest levels of trust are in commercial stations: Radio Kudu, Radio Cosmos, and Channel Seven. These are also the three stations respondents are least likely to listen to (as is reflected in the 'missing' column).

Table 18: Trust in Radio Stations

	Never	Almost never	Somewhat	Almost always	Always	Missing
Trust: NBC Radio	1.8%	1.2%	13.9%	38.8%	41.0%	3.3%
Trust: Radio Kudu	16.7%	12.2%	29.0%	15.5%	5.7%	21.0%
Trust: Radio Ninety-Nine	11.0%	11.0%	31.4%	23.1%	9.4%	14.1%
Trust: Radio UNAM	2.0%	5.3%	25.5%	39.4%	23.5%	4.3%
Trust: Radio Wave	11.4%	10.4%	28.6%	22.0%	12.9%	14.7%
Trust: Channel Seven	18.8%	14.7%	19.4%	13.3%	12.2%	21.6%

Trust: Radio Cosmos	20.0%	15.3%	23.7%	11.8%	5.3%	23.9%

3.1.4 Internet usage

The Internet is not commonly used in Namibia. Given the costly requirements associated with connecting to the internet (telephone costs, soft and hardware costs, service fees etc.), most Namibians simply cannot afford to so, and given the technological requirements for hook-up (a telephone line, a computer, a modem and access to a service provider), most Namibians cannot be connected. Of all the media types assessed here it is the least frequently used by the population as a whole. Students, when compared to the overall population have easy access to the Internet, and hence, one can expect them to connect and surf quite regularly. Approximately 82% of respondents indicated that they connect to the Internet. Some 57% connect to the internet three days per week or less whereas 6% go online every day of the week. More than half those who do go online do so once a day. Table 19 shows that students do not spend excessive long hours on the internet. Some 82% on average spend less than two hours every time they connect.

Table 19: Average time surfing Internet

	Frequency	Percent	Valid Percent	Cumulative Percent
Thirty minutes or less	61	12.0	14.2	14.2
Between thirty minutes and one hour	151	29.6	35.0	49.2
Between one hour and two hours	144	28.2	33.4	82.6
Between two and three hours	50	9.8	11.6	94.2
More than three hours	25	4.9	5.8	100.0
Total	431	84.5	100.0	
Missing System	79	15.5		
Total	510	100.0		

What do students look for when they go online? According to Table 20 students surf the internet primarily in search of entertainment (36%), sports (25.9%) and social issues (24.1%). These are the three issues that most students always look for when online. In contrast, more than one-in-five students never look for information about the economy, politics, elections and human rights online.

Table 20: Most popular online issues

	Never	Seldom	Sometimes	Often	Always	Missing	Total
The economy	32.4%	21.4%	18.6%	6.5%	5.5%	15.7%	100%
Politics in general	25.3%	19.0%	19.2%	13.1%	7.3%	16.1%	100%
Elections	31.4%	18.6%	15.1%	11.0%	7.6%	16.3%	100%
Human rights	20.4%	16.9%	21.2%	15.9%	9.8%	15.9%	100%
Social issues	6.9%	8.8%	18.0%	26.7%	24.1%	15.5%	100%
Entertainment	4.7%	7.3%	13.5%	22.5%	36.3%	15.7%	100%
Sports	21.2%	13.1%	12.0%	12.4%	25.9%	15.5%	100%

This confirms the patterns observed with the other media types: students generally prefer media coverage of social and entertainment issues, and not political and economic coverage. Their preference for the 'lighter' issues could suggest that they acquire very little political and civic knowledge from the media generally. It also

suggests more specifically that the Internet might not be as effective in raising levels of political and civic knowledge as is commonly believed.

Table 21: Interest in specific themes

	Not interested at all	Not very interested	Some what interested	Very interested	Missing	Total
Sports	24.3%	16.3%	15.1%	28.8%	15.5%	100.0%
Entertainment	4.1%	9.2%	26.1%	44.5%	16.1%	100.0%
News: Namibia	6.5%	14.3%	28.8%	34.9%	15.5%	100.0%
News: Africa	8.0%	24.5%	33.5%	18.4%	15.5%	100.0%
News: Europe and America	15.5%	32.5%	25.9%	10.2%	15.9%	100.0%
News: Rest of the world	10.2%	24.7%	31.4%	17.8%	15.9%	100.0%
Namibian politics	14.7%	20.6%	26.1%	22.9%	15.7%	100.0%
Politics in general	16.9%	24.5%	26.9%	16.5%	15.3%	100.0%

When asked about their overall interest in specific themes (Table 21), students remain most interested in entertainment online. Nearly 45% indicated that they are very interested in surfing for entertainment. Interest in Namibian news and Namibian politics are substantially higher than interest in foreign news (Africa, USA and Europe, and elsewhere). Almost 35% of students are very interested in news about Namibia, and 22% is very interested in Namibian politics. In contrast only one-in-ten is interested in news about Europe and the USA.

Table 22: Frequency of visits to specific websites

	Never	Sometimes	Often	Always	Missing	Total
Electoral Commission of Namibia (ECN)	50.4%	22.4%	9.0%	2.5%	15.7%	100.0%
SWAPO Party Youth League	45.5%	19.6%	12.2%	7.3%	15.5%	100.0%
Congress of Democrats (CoD)	72.0%	8.4%	2.4%	.8%	16.5%	100.0%
SWANU Party	76.9%	5.1%	.8%	.6%	16.7%	100.0%
Institute for Public Policy Research (IPPR)	52.4%	18.8%	9.2%	3.1%	16.5%	100.0%
Namibian Economic Policy Research Unit (NEPRU)	45.9%	19.6%	12.9%	5.3%	16.3%	100.0%
Namibia Institute for Democracy (NiD)	55.5%	15.1%	9.2%	3.9%	16.3%	100.0%
Namibian Parliament	38.0%	16.7%	19.0%	10.4%	15.9%	100.0%
Namibian Government	29.0%	18.4%	22.2%	13.9%	16.5%	100.0%
Legal Assistance Centre (LAC)	40.4%	21.0%	16.3%	5.7%	16.7%	100.0%

Table 22 lists the frequency with which students visited specific well-known Namibian websites with political and civic content. Given their low interest in political content, the results are hardly surprising. Overall most students visit these sites never or only sometimes. The most frequently visited site is that of the Namibian government: 14% of students visit this site always and a further 22% visit it often. Opposition party websites are least frequently visited; more than seven-in-ten students never visits these sites (CoD and SWANU). This too points to the limited potential influence of the Internet as a tool for political mobilisation and education in Namibia.

Compared to other media, overall trust in the Internet is low. Table 23 shows that only 5% of students always trust what organizations put on their websites. Almost 43% display qualified trust (trust sometimes), whilst almost 6% trust Internet contents almost never or never.

Table 23: Trust in Internet content

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	7	1.4	1.4	1.4
Almost never	22	4.3	4.3	5.7

Somewhat	219	42.9	42.9	48.6
Almost always	150	29.4	29.4	78.0
Always	26	5.1	5.1	83.1
Missing	86	16.9	16.9	100.0
Total	510	100.0	100.0	

3.2 Political Interest

Political interest is an important component of the overall political cognition of any citizen. It is generally accepted that higher levels of political interest enhance prospects for political learning, as well as, increase potential for participation and mobilization. Only about one-in-four (26%) students do not associate themselves with a political party (neither a member nor a supporter). Of these 66% associated themselves with the ruling party (SWAPO Party). In this respect students show a pattern of party support congruent to that of the voting population as a whole.

General interest in politics among students is at best, quite moderate. Table 24 shows that slightly more than 30% of students are either not very interested or not interested at all in politics. One-in-four claim to be very interested, and the remaining 40% are fairly interested.

Table 24: Interest in politics

	Frequency	Percent	Valid Percent	Cumulative Percent
Not at all interested	31	6.1	6.1	6.1
Not very interested	137	26.9	26.9	32.9
Fairly interested	211	41.4	41.4	74.3
Very interested	131	25.7	25.7	100.0
Total	510	100.0	100.0	

Dalton (1984) regards the combination of partisanship (closeness to a party) and cognitive ability (education and interest) as crucial for political mobilization. Based on a classification of citizens on these two categories, he argues that mobilization could take one of three routes: through partisanship, through own cognitive ability or through a combination of both. Those without partisanship and with limited cognitive ability are unlikely to be mobilized. Based on these two variables he identified four types of citizens:

- *Apartisans/Deliberators*: These individuals have high cognitive abilities but low partisanship. They mobilize themselves through their own cognitive abilities, which enables them to search for and finding the appropriate information to inform their political choices. Their low partisanship means that they could often switch parties to accommodate their current preferences. They are for all practical purposes functionally independent from political parties.
- *Cognitive Partisans*: These individuals had both strong partisanship and high cognitive abilities. They have sufficient skills to process information by themselves but are more likely to be mobilized through party messages (e.g. party websites, party newspapers etc.) than through non-partisan media (e.g. independent newspapers, TV and radio).
- *Ritual partisans*: These individuals have strong links to a specific party but low cognitive abilities. They are likely to be mobilized through party messages primarily as they have limited ability to process information on their own.
- *Apoliticals:* These individuals are unlikely to be mobilized at all given their resistance to political messages. They are neither interested nor capable of processing information, and show greater apathy toward the traditional forms of political mobilization and the organizations who frames the messages.

In his original formulation, Dalton used respondents' education and interest in politics to determine their cognitive abilities. Given that our sample is drawn from students –i.e. a social group with almost uniformly high levels of education, we have to deviate from Dalton's formulation. Instead of using the original education scale ranging from 'no formal education' to 'tertiary education completed', we use 'years spend at university' as the appropriate substitute. It is quite possible that cognitive ability differs within a highly educated group such as students, and that these differences are caused by differences in exposure to tertiary education. This, we believe, could be measured by the time spend at university; a longer time at university causes greater exposure, which in turn should enhance cognitive ability.

Table 25 shows the clustering of students into the four categories devised by Dalton.

Table 25: Cognitive skills and Partisanship

			Cognitive skills		Total
			Low cognitive skills	High cognitive skills	
Partisanship	Not close	Count	72	36	108
		% of Total	**17.4%**	**8.7%**	26.2%
	Close	Count	124	181	305
		% of Total	**30.0%**	**43.8%**	73.8%
Total		Count	196	217	413
% Of Total			47.5%	52.5%	100.0%

Only about 8.7% of students are deliberators or apartisans; 17.4% are apolitical; 30% are ritual partisans; and 43.8% are cognitive partisans. This suggests that 73% of students would be mobilized by parties or party generated messages. Less than 10% would be mobilized through non-partisan media messages alone. If we regard those with high cognitive skills to be best positioned to acquire political and civic knowledge, some 52% of the sample should learn something during our experiment. The fact that by far the majority has strong party preferences might suggest that they would only pick up on those messages with party contents hence they would be limited in what they learn.

3.3 Political and Civic Knowledge

3.3.1 Existing Knowledge

Students were asked 21 multiple response questions to gauge political and civic knowledge. These included questions on:

- Local political leaders (7 questions)
- Public Policy (6 questions)
- Constitutional issues (3 questions)
- Regional and international issues (3 questions)
- General political issues (2 questions)

The answers to each of these questions appeared in each of the four media mock-ups, and all respondents except those in the control group had exposure to the answers. Table 26 shows that in line with research elsewhere, students across board performed poorly in the overall pre-test. As we have seen, their performance is especially poor on policy issues. Given the fact that respondents were randomly assigned to each of the groups, there are no clear between-media group differences on the pre-test scores. Within-media group differences are also insignificant as a result of the random allocation of respondents.

Table 26:Average knowledge levels by group and item

Media type		Overall knowledge (21 items)	Local political leaders (7 items)	Public Policy (6 items)	Constitutional issues (3 items)	Regional and internationa l issues (3 items)	General issues (2 items)
Newspaper	Mean	11.4952	5.1048	.6952	1.8571	1.9524	1.8857
	Std. Deviation	2.70371	1.73717	1.05724	.72627	.68474	.31968
TV	Mean	10.4563	4.5631	.5922	1.6796	1.8641	1.7573
	Std. Deviation	3.40351	2.20814	.92288	.80700	.82899	.49440
Internet	Mean	10.2700	4.7500	.3700	1.6700	1.7700	1.7100
	Std. Deviation	2.97075	2.05173	.76085	.79207	.81470	.49838
Radio	Mean	11.0980	5.1078	.6569	1.8529	1.7549	1.7255
	Std. Deviation	3.02305	1.80706	.94915	.73656	.80144	.47003
Control	Mean	10.2500	4.5500	.5600	1.6000	1.7400	1.8000
	Std. Deviation	3.27332	2.02198	.96735	.69631	.84829	.40202
Total	Mean	10.7216	4.8176	.5765	1.7333	1.8176	1.7765
	Std. Deviation	3.11106	1.97928	.94080	.75707	.79789	.44439

However, male students has small but significantly higher overall knowledge levels than female students (F=11.31; p<.001). This knowledge gap exists across all items, except for local political leaders and general political issues. Furthermore, there is no significant correlation between the age of respondents and their test scores, but years at university does correlate with some response items (overall knowledge; local political leaders; and general political issues) confirming our proposition about the importance of exposure to tertiary education for acquiring knowledge. The correlation between overall levels of knowledge and years at university is positive and significant (r=. 125; p<. 005) but not overly strong. Thus although years at university is a significant predictor for how much students know about political and civic matters, it should be treated with caution: knowledge is not a product of exposure to tertiary education alone.

The various types of knowledge are inter-correlated, meaning that a higher or lower score on one category is usually associated with a higher or lower score on all the others. For example, knowledge of local political leaders show a strong positive correlation with overall levels of knowledge (r=.845; p<.000); moderate to weak positive correlation with constitutional issues (r=.348; p<.000), general issues (r=.490; p<.000) and with regional and international issues (r=.132; p<.000); but has no significant correlation with public policy issues (r=.066; p=.136). Table 27 contains the correlation matrix for all six main categories of knowledge.

Table 27: Correlations: Types of knowledge

	Overall knowledge (21 items)	Local political leaders (7 items)	Public Policy (6 items)	Constitutional issues (3 items)	Regional/ international issues (3 items)	General issues (2 items)
Overall knowledge (21 items)	1	.845(**)	.444(**)	.604(**)	.427(**)	.502(**)
Local political leaders (7 items)	.845(**)	1	.066	.348(**)	.132(**)	.490(**)
Public Policy (6 items)	.444(**)	.066	1	.238(**)	.140(**)	.041
Constitutional issues (3 items)	.604(**)	.348(**)	.238(**)	1	.183(**)	.144(**)
Regional and international issues (3 items)	.427(**)	.132(**)	.140(**)	.183(**)	1	.001
General issues (2 items)	.502(**)	.490(**)	.041	.144(**)	.001	1

** Correlation is significant at the 0.01 level (2-tailed).

All things considered, what explains or predicts the knowledge levels of students before being exposed to the intervention? Where does their existing knowledge come from? Is it from prior media usage or from their

experience at university, closeness to a political party or some cognitive elements such as interest in political affairs? To answer these questions, we built a linear regression model (OLS) with their overall pre-test scores as the dependent variable. The results of the model are contained in Table 28 below.

Table 28: Regression coefficients: Pre-test knowledge levels

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	10.953	1.418		7.727	.000
Frequency: Daily newspapers	.352	.118	.156	2.977	.003
Hours p/d television	-.097	.077	-.064	-1.260	.208
Hours p/d radio	.025	.062	.021	.401	.688
Average time online	-.586	.148	-.197	-3.953	.000
Interest in politics	.613	.193	.170	3.175	.002
Party closeness (0=no;1=yes)	1.702	.402	.233	4.229	.000
Efficacy recoded (0=no;1=yes)	-.295	.549	-.029	-.537	.591
Gender (1=female;2=male)	-1.116	.326	-.175	-3.428	.001
Age	-.028	.057	-.027	-.498	.619
Years at this university	.191	.147	.070	1.301	.194

Overall the model explains 22% of the overall variance in existing knowledge levels and is significant (R Square =.221; F =9.157, p<.001). Of the ten independent variables entered into the model, five are significant predictors of knowledge. The single most significant predictor of civic and political knowledge is closeness to a political party. This means that those who are either a member or a supporter of a political party will know more about political and civic matters than those who are not. Another strong predictor is interest a politics; those who are interested in politics will know more than those who are disinterested. These findings confirm the importance of cognitive elements to knowledge about politics; interest precedes knowledge, and those who align themselves to a political party are generally more interested in politics. It is therefore, not surprising that such individuals will know more.

Of all the media usage items, only the frequency, with which newspapers are read, is a significant positive predictor of political and civic knowledge. The frequency of exposure to TV and Radio are insignificant and the time spend online is a significant negative predictor. It is not clear why this is the case as interest and attention to specific themes are generally consistent across the various types of media. Yet, with regard to the Internet, the gap between entertainment and politics is greatest across all four media types, suggesting perhaps that student visit sites that contribute little to their knowledge of civic and political knowledge.

Of the three socio-structural variables entered into the model, only gender is a significant predictor of knowledge. Overall male students know more about civic and political matters than their female counterparts.

3.3.2 Changes in Knowledge Levels

Table 29 contains the results of the answers to the individual 21 items. Generally most students knew who key political leaders were, but few knew about key policy issues. There are two possible explanations for this. Firstly, leaders receive much more frequent media coverage than policy issues and as a result are better known. In addition, coverage on leaders contains more knowledge re-enforcing elements (photo's, captions and headlines) than policy issues which enhance knowledge retention. The policy issues used during the experiment, on the other hand, are relatively new items with much less previous coverage. Secondly, it is possible that it is simply easier to learn and remember a face and a name than it is to learn and remember the nuances of legislation or policy documents.

Table 29: Knowledge gains by item

	Pre-test Correct (%)	Post-test 1 Correct (%)	Change (%)	Sig. (2-tailed)
Prime Minister	80.2	84.8	4.6	*
Minister of Finance	74.7	81.7	7.0	**
Deputy Prime Minister	65.9	78.2	12.4	**
President of the COD	88.6	90.7	2.1	n.s.
President of the NUDO	63.1	69.7	6.5	**
Secretary General of the SWAPO Party	42.4	46.2	3.9	n.s
Date of Independence	97.8	99.0	1.2	**
Number of chambers of parliament	42.2	47.4	5.3	*
Age of voting	95.9	97.1	1.2	n.s.
Presidential terms	35.3	39.1	3.8	n.s.
Anti-Corruption Bill	16.9	39.6	22.7	**
Revenue from personal income	10.8	15.6	4.9	*
Powers of Anti-Corruption Commission	9.6	11.2	1.6	n.s.
Revenue from mining taxes	6.7	19.6	12.9	**
Health expenditure	6.1	10.0	3.9	**
SACU membership	26.1	39.4	13.3	**
SADC membership	73.3	77.0	3.7	*
CoD flag	79.8	85.1	5.3	**
Leader of the UDF	66.9	79.5	12.6	**
President of Nigeria	82.4	91.4	9.1	**
Maximum fine Anti-Corruption Bill	7.6	25.9	18.3	**

** - Significant at the 0.01 level
* - Significant at the 0.05 level
n.s – Not significant

Table 29 also shows the changes in knowledge levels of all those exposed to both the pre- and post-test. The control group respondents, who were not exposed to the intervention, are not included here. The levels of statistical significance are computed by means of paired sample t-tests. Overall knowledge levels increased for all 21 individual items, but in five instances the increase was not statistically significant. These five items are a combination of local political leaders, constitutional issues and policy issues. In addition, in two instances the existing stock of knowledge was already high (President of the COD and Age of Voting) and in one it was extremely low (Powers of the Anti-Corruption Commission). All in all there appears no specific pattern to the types of knowledge students are most likely to acquire as a result of the experiment.

Table 30 below records the average overall knowledge scores for each media type across the four waves of testing (keep in mind that the control group did not participate in the first immediate posttest wave). It is clear that the greatest improvements in knowledge levels occurred in the TV and Radio groups. Newspapers and the Internet added insignificantly to existing stocks of knowledge.

Table 30: Mean knowledge levels - Pre and Post-tests

Media type	Pre-test	Post-test 1	Post-test 2	Post-test 3
Newspaper	11.4952	11.0476	11.1048	11.1238
TV	10.4563	11.8529	11.6569	11.5784
Internet	10.2700	10.3600	10.2900	10.5500
Radio	11.0980	11.9608	11.8235	11.9314
Control	10.2500	-	10.2828	10.3838
Total	10.7216	11.3081	11.0394	11.1201

On average, TV added almost one-and-half points to existing stock of knowledge from the pre-test to the first post-test, and radio one full point. Although the Internet did add to existing stock of knowledge, its positive impact was statistically insignificant. All three these media types performed in the predicted direction, i.e. knowledge levels increased after exposure to the intervention. The impact of newspapers presents an opposite pattern of influence however. Here respondents knew less after the intervention than before as average knowledge levels declined by almost half a point. Table 31 shows the significance of changes in knowledge levels as determined by paired sample t-tests.

Table 31: Changes in knowledge levels: Pre- and Post-tests

Media type	Pre-test and Post-test 1	Post-test 1 and Post-test 2	Post-test 2 and Post-test 3	Pre-test and Post-test 3
Newspaper	-0.45**	0.06 n.s.	0.02 n.s.	-0.37*
TV	1.37**	-0.20 n.s.	-0.08 n.s.	1.10**
Internet	0.09 n.s.	-0.07 n.s.	0.26 n.s.	0.28 n.s.
Radio	0.86**	-0.14 n.s.	0.11 n.s.	0.83**
Control	-	-	0.10	0.15

** - Significant at the 0.01 level
* - Significant at the 0.05 level
n.s – Not significant

Table 31 also shows for TV, radio and Internet, knowledge declined between the first and second post-tests. As these tests were approximately one week apart, it suggests that the knowledge gained immediately after the intervention, cannot be recalled completely one week later. At least some part of the initial gains must therefore be considered non-durable, short-term gains. This is further confirmed if one considers the fact that the knowledge gains between the pre-test and the final post-test, is generally smaller than the immediate gains between the pre-test and first post-test. Yet, as the last column of Table 30 shows, students were able to recall at least some part of their newly acquired knowledge three weeks later, especially of they gained this through TV or Radio. Although students learned less from radio than from TV, their knowledge levels remained more constant from the first to the last post-test; their recall is more consistent suggesting that that they remember better than their counterparts exposed to the TV intervention. It is quite possible that the gains between the second and third post-tests recorded for radio, newspapers and Internet is the product of 'natural knowledge accumulation' as is demonstrated by the gains in the control group. If these natural gains are subtracted from these media scores, the changes are insignificant.

There is no significant difference in knowledge gains between men and women, both learn more or less equally. Younger students learn more than older students, especially immediately after exposure to the intervention. Their knowledge levels decline slightly faster than that of older students.

Table 32 shows cognitive partisans were most knowledgeable of all groups at the start of the experiment. Although they learned little during the experiment, their knowledge levels remained highest throughout. Ritual partisans knew second most at the start, but learned very little and were ultimately surpassed by deliberators after exposure to the interventions. Deliberators gained almost two knowledge points from the pre-test to the first post-test, and apoliticals approximately one-and-a-half. Across all four waves, Apoliticals and Deliberators gained most knowledge.

Table 32: Average knowledge levels by cognitive groups

	Pre-test	Post-test 1	Post-test 2	Post-test 3
Apoliticals	8.69	10.10	9.59	9.72
Ritual Partisans	10.16	10.68	10.37	10.50
Cognitive partisans	11.75	12.11	11.92	11.94
Deliberators	10.03	11.78	11.19	11.06

In effect, all four cognitive groups learned during the experiment. All four groups have higher knowledge levels (however small) from the pre-test to the first posttest. However, not all learned equally: apoliticals learned most of all. Their increase in knowledge levels was significantly more than that of ritual partisans (mean difference=1.024; $p<0.05$) and cognitive partisans (mean difference=.985; $p<0.05$). The difference in pre-test and first post-test score between apoliticals and deliberators was statistically insignificant – these two groups gained knowledge in near equal proportions. Apoliticals and Deliberators also remembered better than the other two groups. At the end of the final post-test, they gained a full point on the overall knowledge scale. Table 33 shows the significance of changes in knowledge levels for all four groups.

Table 33: Knowledge gains by cognitive groups

	Pre-test and Post-test 1	Post-test 1 and Post-test 2	Post-test 2 and Post-test 3	Pre-test and Post-test 3
Apoliticals	1.34**	-0.38 n.s.	0.13 n.s.	1.01**
Ritual Partisans	0.32 n.s.	-0.11 n.s.	0.13 n.s.	0.35*
Cognitive partisans	0.36*	-0.12 n.s.	0.02 n.s.	0.19 n.s.
Deliberators	1.04*	0.26 n.s.	-0.14 n.s.	1.03*

** - Significant at the 0.01 level
* - Significant at the 0.05 level
n.s – Not significant

Ritual partisans as well as cognitive partisans show much less significant gains in knowledge after exposure to the intervention. One possible explanation for this is that a substantial part of the test had no party content; something one would expect them to be looking for when scanning the media. Their attraction to party contents might have caused them to miss or skip those knowledge items without partisan content. In the final instance we consider the possibility that existing levels of knowledge could have an effect on how much students would learn. This means that it is not so much the medium that determines how much new knowledge is accumulated but rather the type of user. To assess the extent to which existing levels of knowledge influences who much new knowledge is acquired, we divided the sample into three equally sized groups – those with low levels of knowledge (10 or less out of 21), those with medium levels of knowledge (between 10 and 12 out of 21), and those with higher levels of knowledge (more than 12 out of 21).

Table 34: Average knowledge scores by knowledge category

Knowledge categories	Pre-test	Post-test 1	Post-test 2	Post-test 3
Low	7.81	9.15	8.83	8.99
Medium	11.54	11.83	11.64	11.67
High	14.05	13.63	13.58	13.58

Table 34 shows that those with high levels of knowledge knew on average almost twice as much (6.2 points more) as those with low levels of knowledge prior to the experiment. After the intervention, this knowledge gap shrunk to 4.4 points. The gap between the low and medium categories also shrunk (from 3.7 to 2.7). Those respondents in the medium category added very little to their existing knowledge after exposure to the intervention whereas those in the high category saw a small decrease in their knowledge levels. All three categories showed a decline in overall knowledge levels after the first post-test. The average knowledge gains for all three groups are contained in Table 35.

Table 35: Average knowledge gains by knowledge category

Knowledge categories	Pre-test and Post-test 1	Post-test 1 and Post-test 2	Post-test 2 and Post-test 3	Pre-test and Post-test 3
Low	1.25**	-.15 n.s.	.16 n.s.	1.18**
Medium	.26 n.s.	-.06 n.s.	.03 n.s.	.13 n.s.
High	-.37**	-.03 n.s.	.01 n.s.	-.47**

** - Significant at the 0.01 level

* - Significant at the 0.05 level
n.s – Not significant

Table 35 confirms that gains in knowledge from the pre- to the post-test are most significant among those with low levels of prior knowledge. Those with low prior knowledge added more than one point to their overall scores immediately after exposure to the intervention and retained most of the initial gain after two more tests. Those with high prior knowledge show an opposite trend. Their knowledge levels declined immediately after the intervention, and did so again from the first to the second post-tests.

Thus far we have established that both types of media and type of user have an influence on how much students learn from the media. They learn most through TV and Radio, and those with less prior knowledge learn more than those with medium or higher prior knowledge. Another possibility that needs consideration is an interactive effect between these two variables: certain types of users would learn more from different types of media. The results of the interaction between type of user and types of media are contained in Table 36 below.

Table 36: Average knowledge gains by knowledge category and media type

Knowledge categories	Media type	Pre-test and Post-test 1	Post-test 1 and Post-test 2	Post-test 2 and Post-test 3	Pre-test and Post-test 3
Low	Newspaper	.0513	.1795	.0513	.2821
	TV	2.6889	-.4222	-.0667	2.2000
	Internet	.5435	-.1957	.4565	.8043
	Radio	1.5952	-.0952	.1905	1.6905
Medium	Newspaper	-.7083	.0833	-.2083	-.8333
	TV	1.1304	-.0435	-.1304	.9565
	Internet	-.0357	-.0357	-.0357	-.1071
	Radio	.7500	-.2500	.1250	.6250
High	Newspaper	-.7619	-.0714	.1190	-.7143
	TV	-.2059	.0000	-.0588	-.2647
	Internet	-.5769	.1154	.2308	-.2308
	Radio	.0833	-.1111	.0000	-.0278

Table 36 shows that among those persons with low levels of prior knowledge; TV and radio produce most significant increases in knowledge levels. For TV the net average gain in knowledge was 2.7 units between the pre-test and the first post-test, and 2.2 between the pre-test and the final post-test. For Radio these net gains were slightly smaller: 1.6 units from the pre-test to the first post-test, and 1.7 from the pre-test to the final post-test. For those with medium levels of knowledge, the greatest net gain in knowledge was from TV (1.1 units from the pre-test to the first post-test and almost 1 unit from the pre-test to the last post-test). For Radio net gains were lower but still positive (0.75 from the pre-test to the first post-test and 0.62 from the pre-test to the final post-test). Those with high prior knowledge show no significant increase in knowledge levels.

4. Conclusion

The data on media usage showed that students are not big consumers of political, civic and economic information presented by the media. They prefer information about social issues and entertainment. When they do consume news material, they prefer it to be local content to international content. Radio and TV are the media types most frequently used and the Internet the least frequently used. Interest in TV is highest followed by Newspapers and Radio. Trust in The Namibian is highest among Newspapers, and so is trust in the national broadcaster's daily news for TV. Trust in the national broadcaster's radio service is highest followed by trust in the campus radio station. Students are more likely to visit the web sites of the Namibian government and Parliament than those offered by political parties and NGO's when looking for socio-political and economic information.

The analysis of their knowledge levels suggests that existing knowledge about political and civic matters is low overall. The mean score for all those surveyed was 51% (10.7/21). Generally, students knew more about local political leaders, prior to the experiment than about any other matter and hey had least prior knowledge about policy issues. Male students had higher levels or prior knowledge than female students, as had those who had spent more years at university. When modelled, the single most important predictor of prior knowledge was closeness to a political party, followed by interest in politics. Of the media usage variables entered only the frequency of newspaper use had a positive effect on prior knowledge, whilst Internet usage had a negative effect.

Of the 21 individual knowledge items, 17 showed a statistically significant, positive increase in knowledge between the pre-test and the first post-test, suggesting that an overall increase in knowledge occurred. The largest overall increases in knowledge occurred among those exposed to TV and Radio, and most significantly among those with low levels of prior knowledge exposed to TV and Radio. Thus, TV and Radio are more significant learning formats than the Internet or print media, but only for those respondents with low or medium levels of prior knowledge. These findings proof that:

- *There is no "print superiority" in Namibia*. Studies conducted in the USA often concluded that exposure to Newspapers are better than exposure to TV news when predicting political knowledge because of the structural differences between the two mediums. TV is dependent on more dramatic visual footage and has strict time limitations for specific items during news broadcasts which limit the medium's ability and effectiveness in conveying abstract ideas and complex issues. Conversely, newspapers are seen to be more effective in explaining and presenting complex and technical arguments. (Norris and Sanders 2003).
- *The "information revolution" has no significant impact on civic and political knowledge levels in Namibia.* Although the Internet has opened alternative sources of information and channels of learning to the more traditional types of media, the evidence presented here shows no impact on students' knowledge levels about civic and political matters. Although there is no research available on the role of the internet in knowledge transfers in African countries, our data on usage patterns suggest that this medium is less frequently used than the more traditional types of media, and that its is under-utilized. Compared to the other types of media, students use the Internet sparingly, and more infrequently, and search mostly for information about entertainment and sports. Thus, the impact of the information revolution is yet to impact on Namibia.
- *Levels of prior political and civic knowledge determine how much students will learn overall about civic and political matters.* This study, in line with the findings of several international studies, finds that the type of user matters for learning from various media types. Both the cognitive skills and prior levels of knowledge predict how much students will learn from the media. Those with high cognitive skills (interest and years at university) and no party affiliation learn more than those with strong ties to political parties. It is possible that these students look for partisan messages when using the media to acquire new information on political and civic matters. The gains in knowledge from TV and Radio suggests furthermore that these more accessible and less demanding forms of media do narrow knowledge gaps among students significantly; especially the knowledge gaps between those with low and high levels of prior knowledge. However, Radio and TV do not narrow the existing knowledge gap between male and female students.

The implications of these findings for civic and voter education campaigns are thus threefold. Firstly, they should target TV and Radio as the mediums to inform students. Secondly, their campaigns are more likely to succeed among students with lower levels of prior knowledge and with weak or no direct ties to political parties. Thirdly, knowledge about complex and abstract issues such as public policy, are acquired at much slower rates than the more straight forward issues of leadership and the constitution.

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