



ValueGenesis IV Report

Data Collection

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This newsletter is an interim report of the method, procedure, and sample attributes of the Valuegenesis 4 (V4) project. The V4 project is a cross-sectional questionnaire survey project. For sampling, as for the former V1-V3 surveys, it involved cluster sampling, which used the school as a sampling unit given that the 6th-12th graders are "naturally" assembled in schools. All 6th-12th graders in the school where a principal decided to participate were invited to complete the survey. The data collection started early in October 2021, and will continue until mid-January, 2022. Several schools have requested an extension of the survey date to after the Thanksgiving and Christmas holidays to accommodate unique local causes and tight academic schedules.

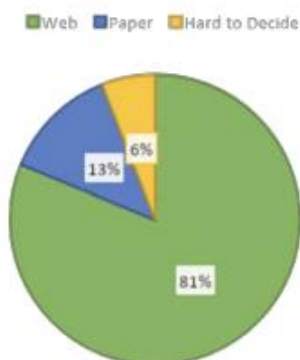
Survey Procedure

Late June 2021, an invitation to answer a short web survey asking their preference between paper and web surveys was sent to all principals in the North American Division (NAD). The link remained open for three months, and we sent eight reminders about the survey to the school leaders during that period. Ultimately, 444 schools responded for a total response rate of 61%. There was a great preference for web-based to paper-based surveys (see Figure 1).

"There was a great preference for web-based to paper-based surveys...81% and 13% chose a web- and paper-based survey, while 6% answered 'Hard to Decide' between the two methods."

Of the schools, 362 (81%) and 56 (13%) chose a web- and paper-based survey, respectively, while 26 (6%) answered "Hard to Decide" between the two methods. In view of research, method preference depends on access to computers and familiarity with online surveys; safety, physical ability, and normative concerns are weak determinants of mode preference (Smyth, Olson, & Millar, 2014). In recent years, the web-based survey has become a popular data collection method, while the preferred mode has traditionally been the paper questionnaire (Ebert, Huibers, Christensen, & Christensen, 2018).

Figure 1.
The V4 Survey Method Preference



Thus, the V4 project adopted a mixed-mode survey administration. Late in September, paper questionnaires were mailed to the schools that chose a paper-based survey or marked the hard-to-decide option on the method-preference survey. The other schools, including non-response schools, received direct links to web-based survey questionnaires. We provided QR codes as well that contained a direct link to the survey. Students could scan the QR codes to access the survey by using their smartphone or tablet.

More in detail, on September 15-25, we (e)mailed a cover letter to all school principals, along with information about parental consent and an endorsement letter from Dr. Arne Nielsen, Vice President for Education in the North American Division. The cover letter asked the principals to complete the survey between October 11 and November 11, 2021. Later, this date was extended twice to November 19 and January 20, respectively, upon the requests from some schools and principals. The principals were requested to send an email or letter to parents telling them about the V4 study and securing their consent in advance.

The school administrators chose one day during the given period that worked best for their school. The students gathered on a selected day in their classrooms or one place (library, computer room, or auditorium). Should this not be feasible, the principals set two days (maximum), dividing the students by grades or other criteria, to carry out the survey.

We strongly suggested, however, completing the survey in one day for the entire school if possible.

Students completed the survey on the same day that they started. They took breaks as needed, but preferably no more than two during the survey. The students were not allowed to take the survey home, access the link outside the school, or show or discuss the questions and answers with their peers, teachers, parents, or other people. We provided the schools with the direct links and QR codes to the survey for the web survey, which was completed when the students clicked the submit box at the end of the online survey. Regarding the paper survey, the principals collected the completed surveys, put them in one envelope or box, and mailed them to us using a pre-paid return shipping label enclosed in the original survey package.

Five reminders were emailed to principals between October 11 and November 15, 2021, asking for participation in the V4 survey. Some principals and parents were concerned over the questions on LGBTQ, suicidal ideation, sexual relation, and substance abuse, especially asking them to younger 6th-8th graders. We made two adjustments late in October, removing eight questions on LGBTQ from the web survey (or asking to skip the questions for paper surveys) to allow and encourage schools concerned about the presence of those questions to participate in the V4 survey.

Such schools had three weeks to complete the survey after the questions were removed or made optional (87 schools filled out the LGBTQ questions, coming up with over 3,100 valid samples). At the same time, 20 additional questions on suicidal ideation, sexual relation, and substance abuse were classified and marked as "optional" to let schools skip or ignore those questions if they were perceived inappropriate for the students.

Response Rate

According to the 2021-22 Opening Report, NAD has 24,055 6th-12th graders enrolled in a total of 732 schools in 58 local conferences. Twenty-two schools had no 6th-12th graders; in 28 schools there was only one 6th-12th grader. We received error messages from 29 schools, primarily because of incorrect or corrupted email addresses or slow transition to new school administration. We also discovered that many principals had multiple email addresses, including old addresses registered in NAD but rarely checked or used. In the end, 653 schools were valid choices or approachable for the V4 project, accounting for 89% of the NAD schools.

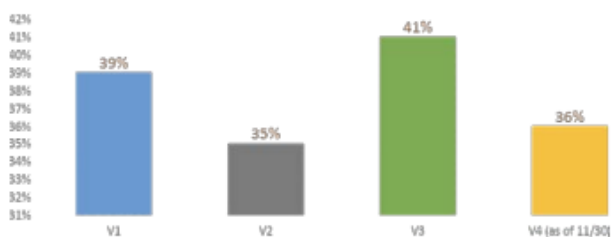
A total of 240 schools completed the survey as of November 30, 2021, providing 8,626 6th-12th grader samples. These figures are approximately equal to 37% of the valid schools and 36% of the students enrolled for 6th-12th grades in the schools.

Response rate is the ratio of schools that participated in the survey compared to the total number of NAD schools with at least two students in 6th-12th grades. Our response rate is compatible with the average response rate in education, business, and social sciences, which is often suggested to be 30-35% (Lindemann, 2021). However, a response rate of 20% is also regularly considered acceptable or adequate (Ramshaw, 2021), even though there is no agreed-upon minimum response rate.

“The current response rate is equal to 37% of the valid schools and 36% of the 6th-12th students enrolled for 6th-12th grades in the schools.”

Figure 2 illustrates the response rate across V1 to V4 surveys, using the number of students who answered the survey. The V1-V4 surveys have many features in common; the former surveys took place three times at ten-year intervals. Our data produce evidence of a steady response rate over time. The V1 response rate was 39%, which declined to 35% in V2 and then bounced back to 40% for V3. The current rate of 36% displayed a response rate that was almost identical with the one for V2 but two percentage points lower than the average of the preceding surveys.

Figure 2.
Response Rate of the V1-V4 Surveys (based on the Enrolled 6th-12th Graders)



This slight decline, at least in part, may come down to three factors. It would first reflect the ever-declining survey-response rate across the board in most countries and research fields (Hohwu, Lysol, Gissler, Jonsson, Pietzold, & Obel, 2013). Over the past decade, response rates are known to have declined roughly 1% per year (Ebert, Huibers, Christensen, & Christensen, 2018). The declining pattern also coincides with the reports that response rates in longitudinal cross-sectional studies have decreased steadily in the United States and many other countries over the decades (Cheshire, Ofstedal, Scholes, & Schroeder, 2011; Curtin, Presser, & Singer, 2005; Schoeni, Stafford, McGonagle, & Andreski, 2013; Steeh, 1981; Smith, 1995).

Second, the lower rate is attributable to using a web-based survey as the dominant mode of the V4 survey. The paper questionnaire was the only mode of collecting data in previous V1-V3 surveys. The response rate for the V4 paper-based survey group is 48%, compared to the digital group with a response rate of 31%.

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Our gap is in line with the estimates of former studies showing that paper-based survey administration engenders a higher response rate when administered to the general population. A meta-analysis study, for instance, examined 45 survey studies (Manfreda, Bosnjak, Berzelak, Haas, & Vehovar, 2008). It was estimated that the response rate in web-based surveys on average was roughly 10% lower than those of other survey methods. This conclusion accords with the findings from medical and social science research. Ebert et al. (2018) noted that a web-based medical survey generally receives a 10% lower response rate than its counterparts using a paper-based mode. In social science, Yan and Fan (2010) also estimated the response rate for web surveys to be 11% lower than other survey methods.

The lower response rate in a web survey is a concern for survey researchers because of its possible selection bias. Many factors would relate to the low response rate of web surveys. Most people, for instance, usually have more than one email address that may be seldom checked on a regular basis (Saleh & Bista, 2017).

A majority of people use the Internet for recreation and entertainment, which makes them often dismiss questionnaire survey participation requests, inducing a low response rate (Silva & Durante, 2014).

This being the case, future Valuegenesis research may consider using different response modes sequentially in that web is offered initially and a paper follow-up option in the final attempt (Millar & Dillman, 2011). A combination of postal and email contacts with a token of cash or administration incentive in advance can also be a potentially effective strategy for improving web-survey response rates. Such incentives reportedly can increase survey response rates by 20-25% in most educational and social science surveys (Chen, Lei, Huang, & Mu, 2015).

A third reason pertains to the potential effect of the COVID-19 pandemic on the V4 survey response. A government report indicated that the response rate for the 2021 public census surveys went down by 10 to 20 percentage points lower than the corresponding surveys that occurred before the pandemic (Rothbaum, 2021). The reduced survey response was partially attributed to the rise of surveys during the pandemic, which led to survey fatigue (De Koning et al., 2021). In education, the situation might be worse. The COVID-19 pandemic could exacerbate the existing overwork, stress, and burnout in school administrators and teachers, resulting in their being less likely to take any additional loads or tasks like administering a questionnaire survey to students (cf. Rollins, 2021).

Participant Observation

To comprehend the factors associated with survey participation, logistic regression was performed. The NAO database provided information about school size (1 teacher, 2 teachers, 3 teachers, and 4 or more teachers), organizational level (PK-8th, PK-10th, PK-12th, and 9th-12th grade schools), and the number of enrolled 6th-12th graders. School size was coded using 1, 2-3, and 4 or more teachers. High (9th-12th grades only) and large (4 or more teachers) schools were used as reference categories. We also considered school location and survey method for the analysis. The reference groups were Canada and non-survey-method-response schools.

As given in Table 1, the schools in Canada showed a higher participation rate than those in the other regions. It is found that participation in the Survey Method Preference Survey had a great relationship with the completion of the V4 survey. Principals who responded to the method survey were more likely to have their students participate in the V4 survey. We discovered that the principals who opted for a paper-based mode had 1.44 times the odds of participating in the survey compared to those who overlooked the method-preference survey. Those with web-survey preference had 1.33 times the odds of participating in the survey than the principals who opted out of the method-preference survey. We also noticed that school size was an influential factor.

A chance for the schools with 4 or more teachers to complete the survey was significantly higher than those with 1 or 2-3 teachers. For the schools with 1 and 2-3 teachers, the odds of participating in the survey decreased by 57% and 51%, respectively, compared to those with 4 or more teachers. The enrollment and organization level were not statistically significant.

Table 1.
Summary of Logistic Regression Analysis Explaining the V4 Survey Participation

Variables	<i>B</i>	<i>SE</i>	<i>Exp(B)</i>
Constant	-.37	.43	.69
Northeast	-1.04*	.45	.35
Midwest	-.32	.45	.73
South	-.56	.43	.57
West	-.86*	.43	.43
One Teacher School	-.84**	.29	.43
2-3 Teacher School	-.71**	.25	.49
PK-08 School	-.19	.41	.83
PK-10 School	.28	.44	1.33
PK-12 School	.37	.44	1.44
Method Survey – Web Preference	1.60***	.23	4.97
Method Survey – Paper Preference	2.05***	.32	7.77
6th-12th Grader Enrollment	.04*	.57	.50

Chi-square (12) = 157.13***; -2LL 695.26; Pseudo R square = .30; Correct Prediction Ratio = 72%; *p < .05; **p < .01; ***p < .001.

For more knowledge, Table 2 presents the attributes of the schools that completed the survey. The table also includes the breakdown of all NAO schools by the same school attributes. The survey was completed by 240 schools, of which 65% had 4 or more teachers. In the order given, schools with 1 or 2-3 teachers made up 14% and 22%.

PK-08 schools comprised 53% of the participant schools for the organization level, followed by 19%, 18%, and 11% of PK-10, PK-12, and 9th-12th grade schools. The survey participants were well representative of all five regions in NAD. The southern and western regions formed 28% and 31% of the participant schools; the other three regions each constituted 10-17%.

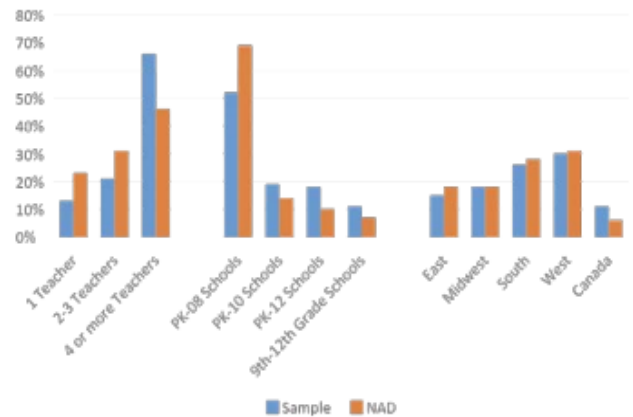
Table 2.
Characteristics of the Valuegenesis 4 Participant Schools

Category	Number of V4 Participant School	Ratio in V4 Sample	Ratio in NAD
1 Teacher	32	13%	23%
2-3 Teachers	51	21%	31%
4 or more Teachers	157	66%	46%
PK-08 Schools	125	52%	69%
PK-10 Schools	46	19%	14%
PK-12 Schools	44	18%	10%
9th-12th Grade Schools	25	11%	7%
Northeast	36	15%	18%
Midwest	43	18%	18%
South	63	26%	28%
West	73	30%	31%
Canada	25	11%	6%

Readers may compare these figures with those for the entire number of NAD schools in the last column of Table 2. Here, we find a potential small caveat. Schools with 1-3 teachers are underrepresented at the 20% level; PK-08 schools are 17% short of their representation in NAD (see also Figure 3).

In other words, the V4 schools are relatively well representative of the entire groups of NAD schools concerning school type, school size, and geographical region, but we may need to exercise some caution when applying the data and analysis results to the 6th-8th grade students in small PK-08 schools.

Figure 3.
Comparison of V4 Sample and NAD School Attributes (Percentages)



The modest underrepresentation of small PK-08 schools would be no surprise. The principals in 1-3 teacher schools have some of the most complex, multifaceted jobs in Adventist education, often without basic help from colleagues, peer teachers, and administrative staff. They may scramble every day for lesson plans, classroom instructions, student and parental issues, school maintenance, and administrative tasks. The PK-08 schools they preside over, meanwhile, mostly have a minimal number of 6th-8th grade students.

This fact could raise concerns among the principals and parents about the survey's anonymity, privacy, and confidentiality. This might have been the case for the V4 study since it dealt with some potentially sensitive topics, such as LGBTQ, suicidal ideation, sexual relations, physical abuse, and substance abuse. Combined, these factors may have led some principals in small schools to discount the requests about the project, reducing their overall participation in the V4 questionnaire survey.

Summary & Data Analysis Plan

The V4 survey includes a total sample size of 8,626 students from 240 schools as of November 30, 2021. The sample size is statistically more than sufficient to represent the overall NAO 6th-12th grader population. The 36% response rate would be an achievement given the challenges against the V4 survey, such as fatigue from the COVID-19 pandemic, increased student surveys in NAO, and the adoption of a web-based survey for the project. The sample consists of the 6th-12th graders from all

five regions in NAO and all types of schools in terms of enrollment, school size, and organization level. The V4 sample may still offer a somewhat limited view of the pupils in PK-08 and 1-3 teacher schools, granted their slight underrepresentation. But it is essential to recognize that this issue is not unique to the V4 survey but was the case for the former projects as well.

“The sample well represents the overall NAD 6th-12th grader population...from all five regions in NAD and all types of schools in terms of enrollment, school size, and organization level.”

Data analysis will start when data collection ends in January 2022, followed by reports that will help us understand the status of our current students and know changes over the past 30 years concerning faith, family, school, personal lifestyle, and mental health. The data will also reveal patterns or trends that may indicate where our schools are heading in

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