



Program Evaluation ▶▶

Financial Life Skills for Planning 10



Prepared for:

BC Securities Commission

Prepared by:

Innovative Research Group

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Agenda

Methodology and Approach

Executive Summary

Student Profile

Diagnostics: Pre- and Post-Tests

Materials Evaluation

Methodology & Approach



Methodology and Approach

The Core Concept

- The BCSC sought to assess the effectiveness of its Planning 10 resource material. The impact was assessed by measuring the knowledge and attitudes of 42 students who completed the financial component of the Planning 10 curriculum before and after they attended the course. The students were divided into two classes and the material covered over four days – from July 17th to July 20th, 2006.

The Key Measure: Pre- and Post-Tests

- Working with the existing materials for Financial Life Skills for Planning 10 and cross-referencing with the Investor Protection Index, we designed pre- and post-tests to determine whether underlying attitudes and beliefs changed significantly as a result of the course materials. Forty-two students completed both the pre-test and post-test.

Supplemental Research: Diaries and Focus Groups

- At least one researcher was on site observing one of the classes throughout the exercise.
- Each student was asked to complete a comment sheet at the end of each day, highlighting their perceptions of what worked and what didn't that day. The researchers were also debriefed by the teachers on their views of the course materials during breaks and at the end of each day.
- On the final day of teaching the course materials, we conducted discussion groups with the students in each class to review the issues flagged through direct observation or through the comment sheets in order to assess reaction to course material and to seek their ideas for improvement.
- Following the student discussion groups, we conducted a review session with the teachers seeking their reaction to the students and their own views on problems and potential solutions with the course materials.

Executive Summary



Executive Summary

Participants were fairly typical students

- While more liked school than not, just 3 strongly agree they liked school
- Seventeen find their classes fairly tough

They like the course

- Sixteen gave it an A, 20 gave it a B, just 6 a C+ and none less than that
- Most topics are seen as interesting by 30 or more of the students
- Almost all the topics were seen as easy to understand by 30 or more students

The course moves the numbers that should move and doesn't move the numbers that shouldn't move

- Students are much more confident in their ability to find information WITHOUT becoming overconfident in their personal abilities.
- They are much more likely to see financial planning as personally relevant to them and much more likely to hold attitudes that support critical thinking.
- They are much more aware of their personal vulnerability to fraud without increasing their likelihood to blame the victim.

The Lifestage Characters work

- Twenty-one said the Lifestage Characters were very interesting and another 16 said somewhat interesting
- The same numbers said very useful (21) and somewhat useful (16)



Executive Summary {continued}

Possible Improvements

Greater use of Lifestage Characters

- There is room to make more use of the Lifestage Characters, particularly in topics (budgeting) or on tasks (such as reviewing a pay stub) that are outside the experience of many students.

Less Mathematics

- It would be helpful to reduce the amount of math and focus more on core concepts.
- The goal of this program is to provide students with the basic financial life skills knowledge they can use throughout their lives, not exercise their ability in mathematics.

Focus on Broad Concepts NOT Details or Mechanics

- It may be helpful to place more emphasis on working with broad concepts (the power of compound interest) and less emphasis on details (debentures versus bonds OR memorizing financial definitions).

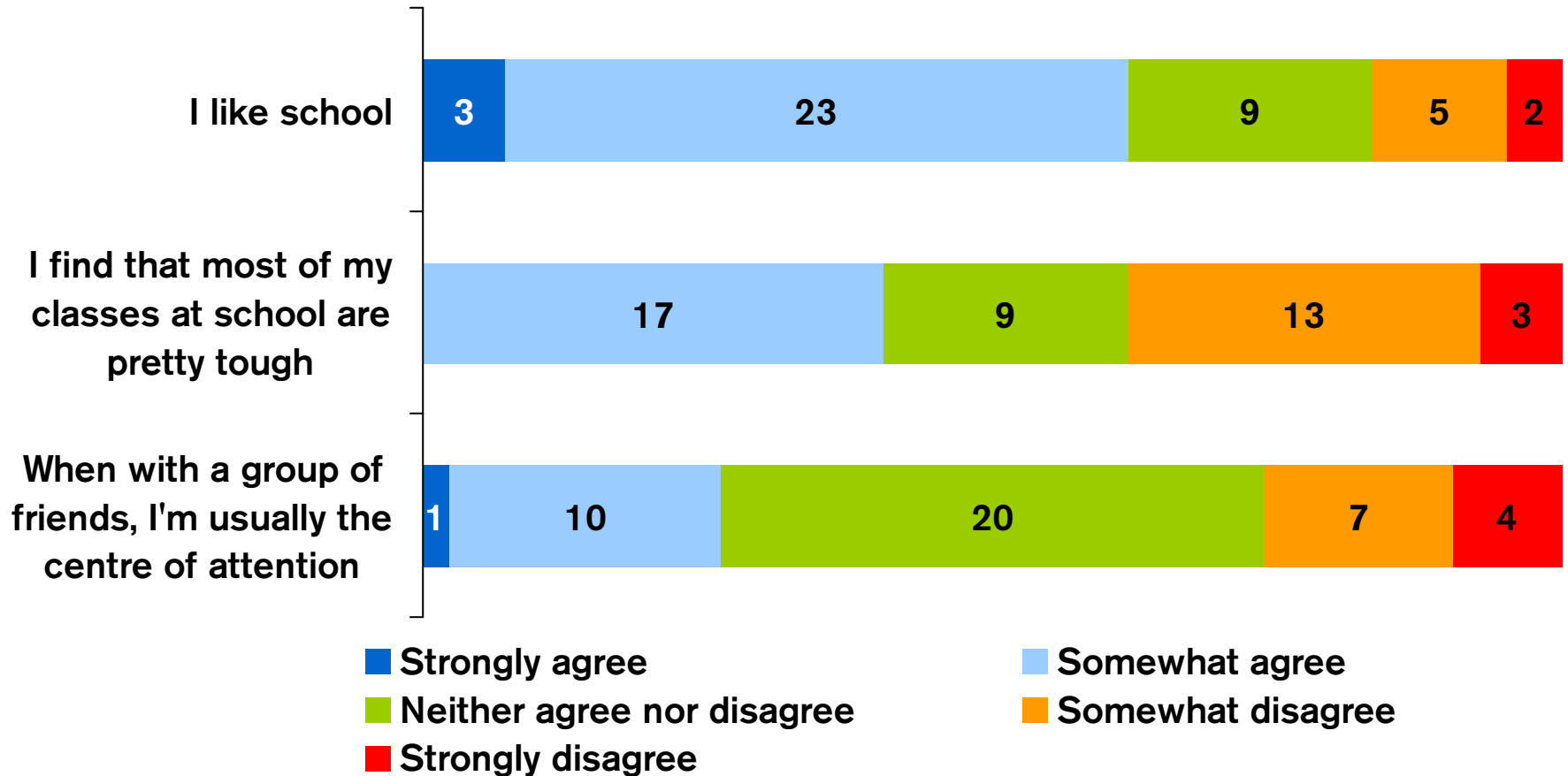
Student Profile



Wide range of participants

Q

Please indicate whether you agree or disagree with the following statements:



“Don't know” / “refused” not shown

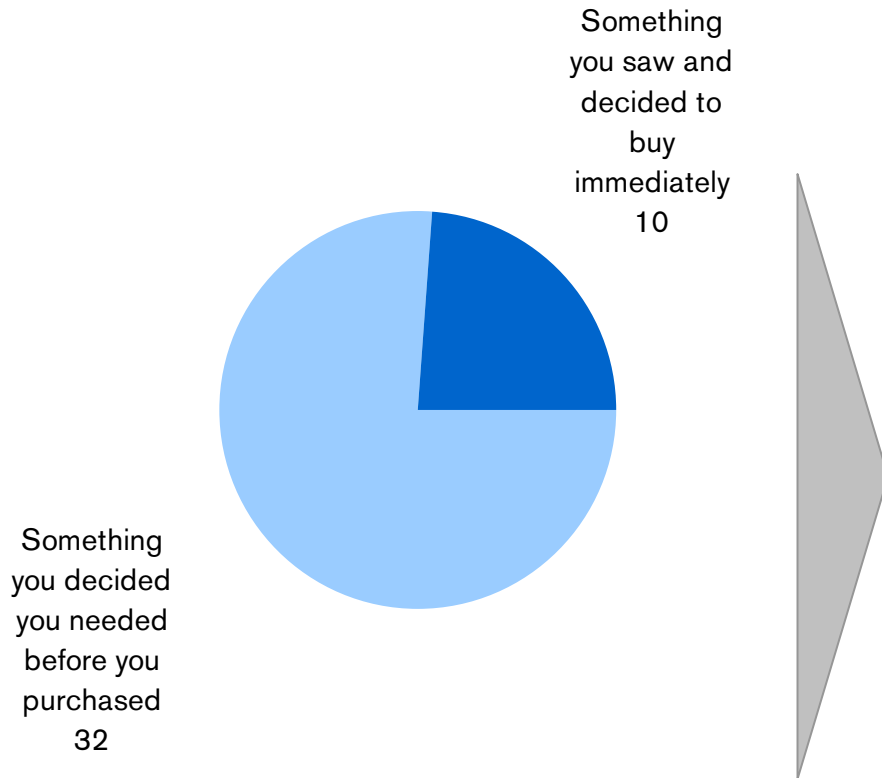
Purchase Decision-making

Student purchases demonstrate critical thinking skills

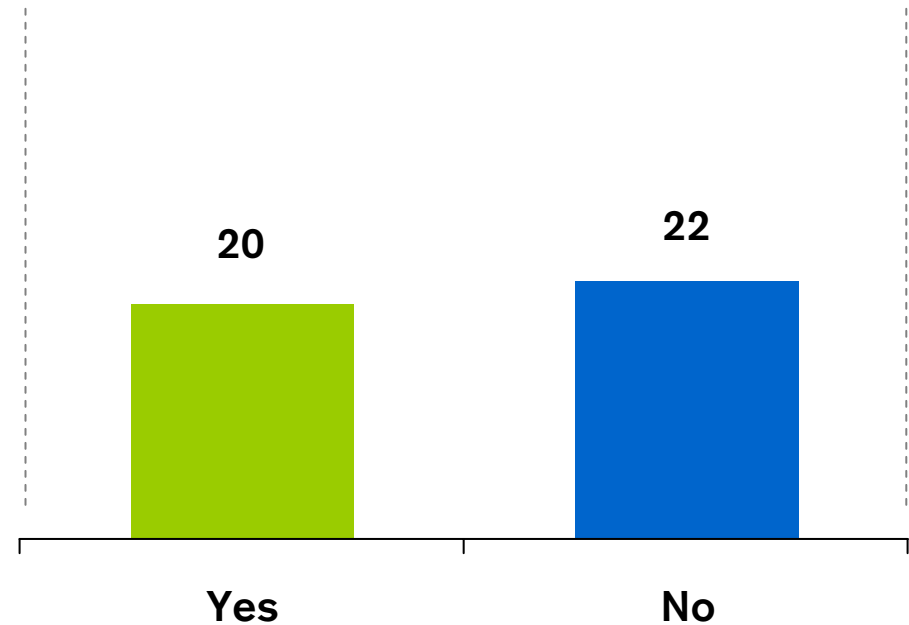
- Just 1/4 say last purchase over \$100 was an impulse buy.
- About half students had researched the product before purchasing.
- Two-thirds of students did NOT buy product immediately.
- Two-thirds of students say they knew enough to explain product features to someone else.
- Two-thirds claim to often compare purchases with similar products for price and quality.

Just one in four bought on impulse

Q When you last purchased an item over \$100, was it ...

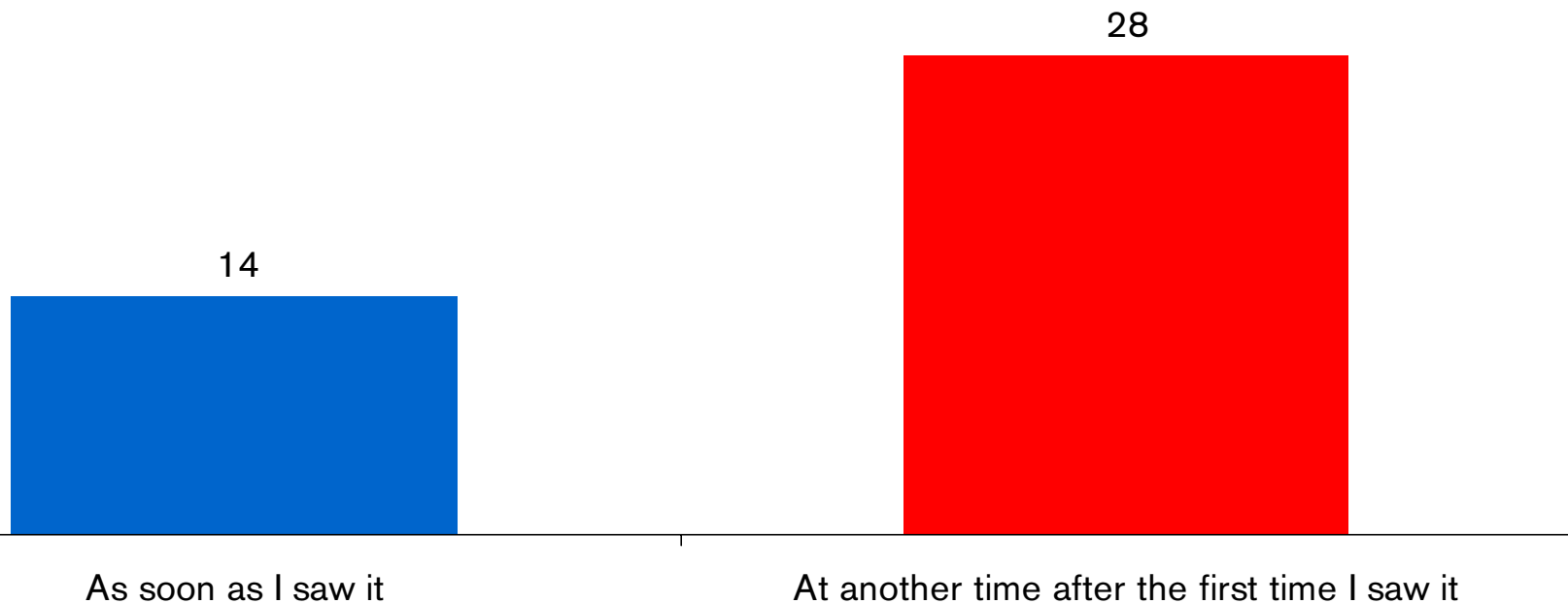


Q Did you have an opportunity to do research on this item before you bought it?



Only 1 in 3 bought as soon as they saw the product

Q How soon after you learned about the item, did you make the purchase?



Note: 'Don't know' not shown

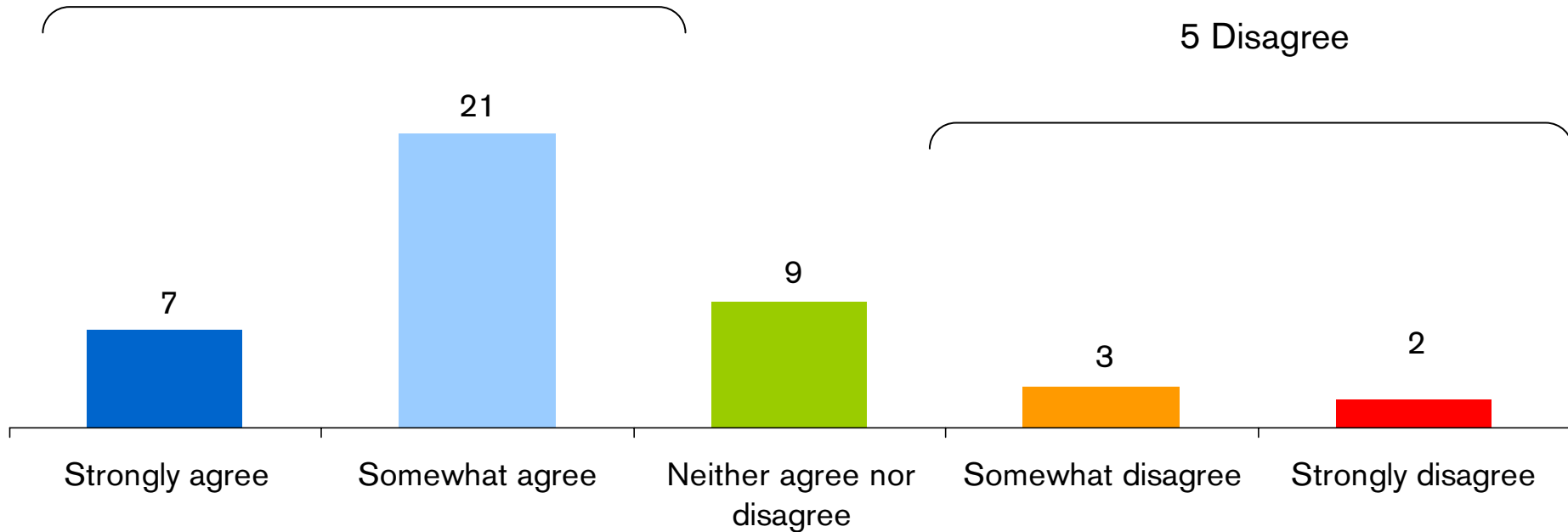
Students claim good familiarity with product

Q

I generally know a lot about the product I recently bought and can explain the features to others.

28 Agree

5 Disagree

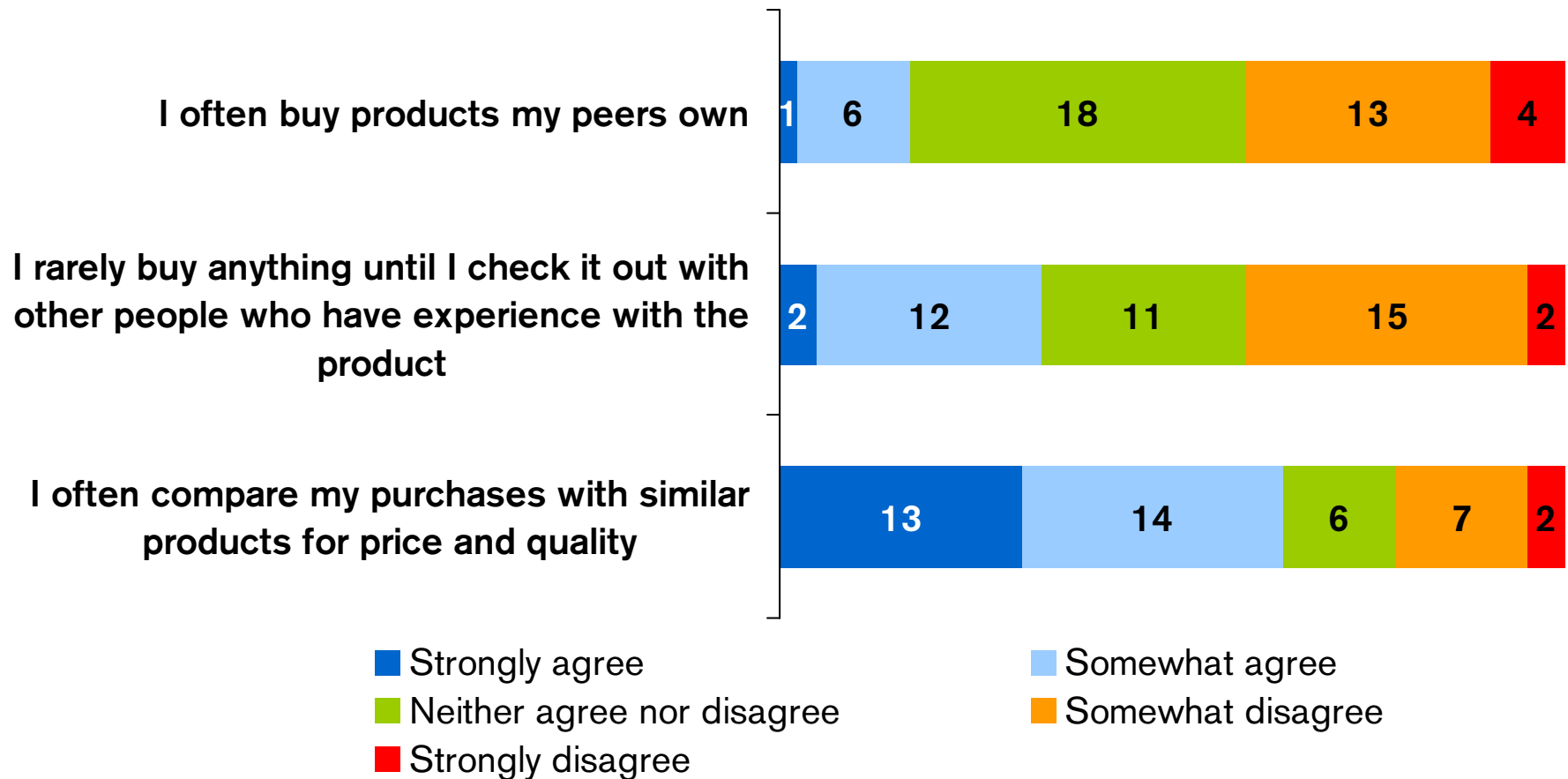


Note: 'Don't know' not shown

Students often shop around and compare

Q

Please indicate whether you agree or disagree with the following statements



"Don't know" / "refused" not shown

Impact of Course on Key Attitudes

Pre- and Post-Tests



Objective Measures of Change (Pre-Post Measures)

This section assesses changes in responses in the pre- and post-surveys using statistical tests.

The quantitative/qualitative evaluation included a series of beliefs and attitudes that were considered likely to be impacted by the *Financial Life Skills for Planning 10* course materials. Participants were asked to indicate their responses to these items both before and after being exposed to the course materials. The first graph summarizes the responses prior to exposure to the course materials. The second graph summarizes the responses after being exposed to the course materials. The net change is the difference between the responses in the pre-test to a given question, and the responses for same in the post-test.



In order to determine how significant this net change was, INNOVATIVE conducted a “t-test,” the scores of which you will see in the pages that follow. This statistical measure compares the average scores of two variables across the whole of a tested sample: in this instance, we are comparing the average scores between the pre- and post-tests for each measure (question) tested. For example, a mean score in a pre-test may be recorded as “somewhat agree” while in a post-test, “strongly disagree”. The t-test allows us to determine if the shift in this average score is significant and not occurring by chance. Practically speaking, we are trying to determine if these results can be seen in the population as a whole, rather than our tested groups alone.

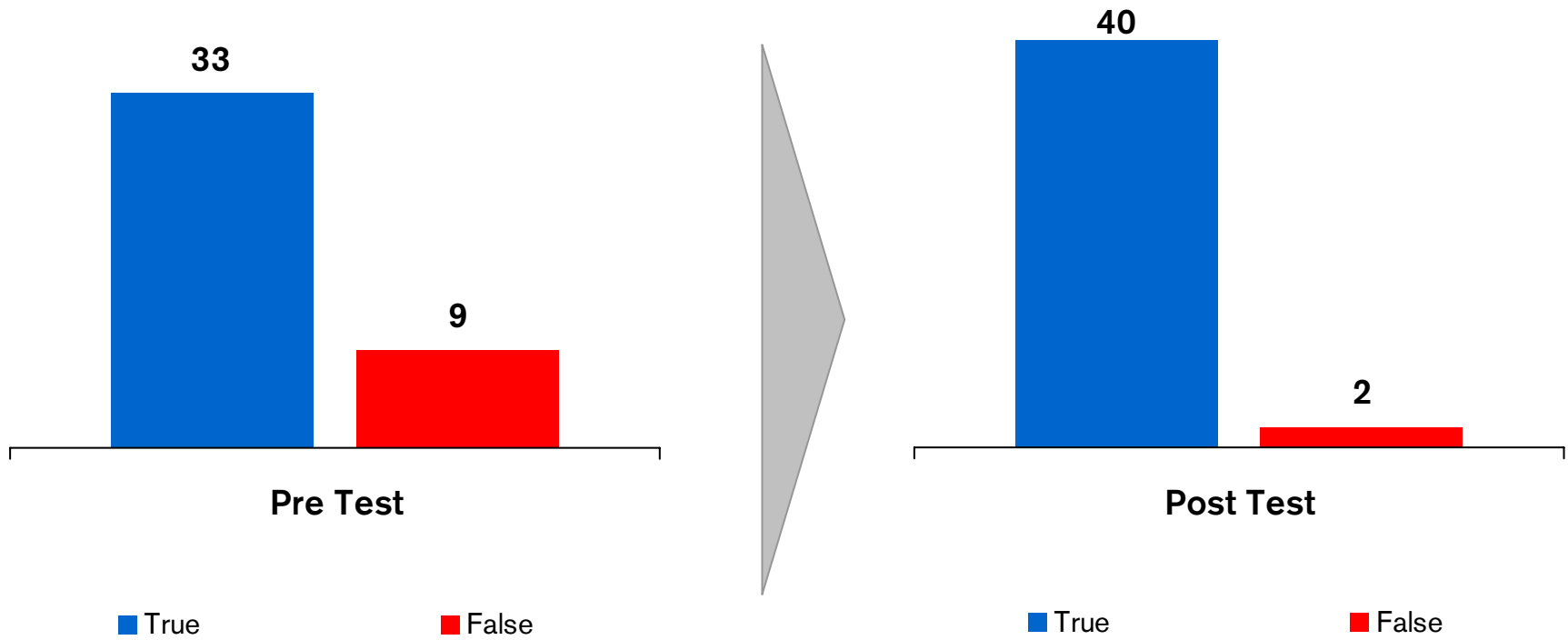
When using the t-test to measure significance, we look for scores of 0.05 or .1, which generally indicate significant change that is not due to chance: a significant relationship between two variables. The numbers themselves indicate how confident we can be that the relationship is significant; at 0.05, the relationship is significant at a confidence level of 95%, while a 0.1 reading is significant at a confidence level of 90%. When we apply these results to the whole population, we read a 0.1 significance score on the t-test as “the relationship (change in scores) that we see between these two variables will hold true 9 times out of 10.”



Seven out of nine incorrectly answering question in pre-test correct their response in post-test

Q Generally speaking, investments that offer higher than average rates of return have a higher than average level of risk. (Correct answer: True)

 =  No difference of opinion between gender



Paired T-test: **0.018**
**Significant Change at 95%*

Strong gains on investment success factors

Tools and Values:

Students show significant gains on *the importance of having financial plan; savings and personal responsibility* have initial strong support but only show directional gains

- All but four students ended up agreeing that having a financial plan is important for people like me
 - Strong agreement doubled from 13 to 26
- While 37 began saying savings was important, strong agreement grew by 5
- Personal responsibility to acquire investment skills started strong but did not grow significantly.

Critical Thinking:

Students show significant gains on most measures

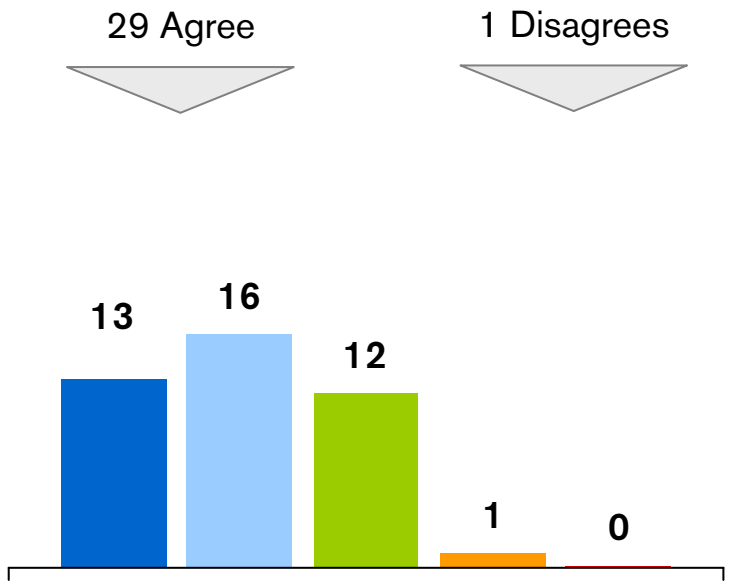
- Strong agreement on need for independent research grew from 18 to 37
- Agreement that you need to act immediately dropped from 30 to 11
- Twice as many disagree that the only way to make good returns in the stock market is to make risky investment, but half unsure or agree at end
- Almost half still agree one of the best ways to make money in the stock market is to look for inside tips

Twice the number in post-test as pre-test strongly agree on need for financial plan



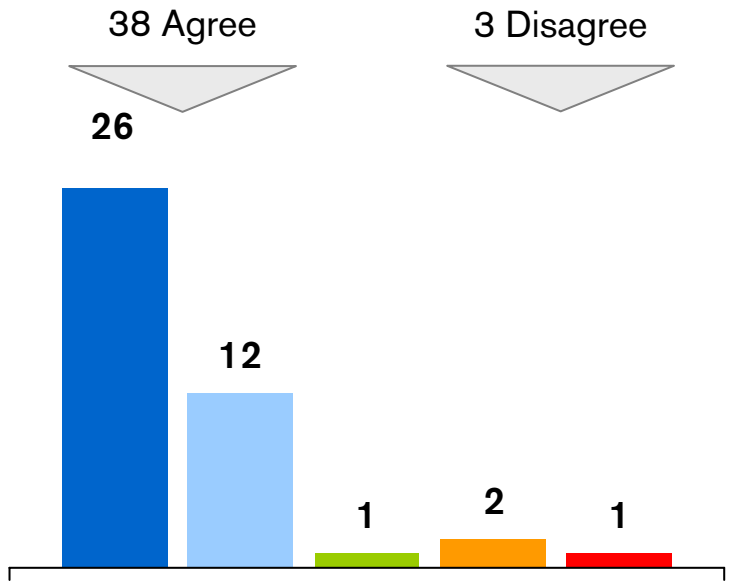
Having a financial plan is important for people like me.

= No difference of opinion between gender



Pre Test

Strongly agree Somewhat agree
 Neither Somewhat disagree
 Strongly disagree



Post Test

Strongly agree Somewhat agree
 Neither Somewhat disagree
 Strongly disagree

Paired T-test:



0.006
**Significant Change at 95%*

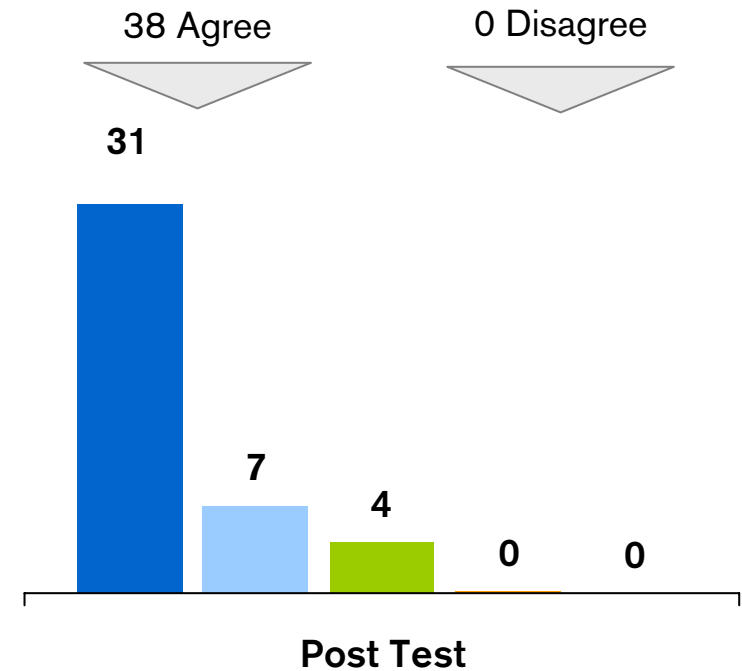
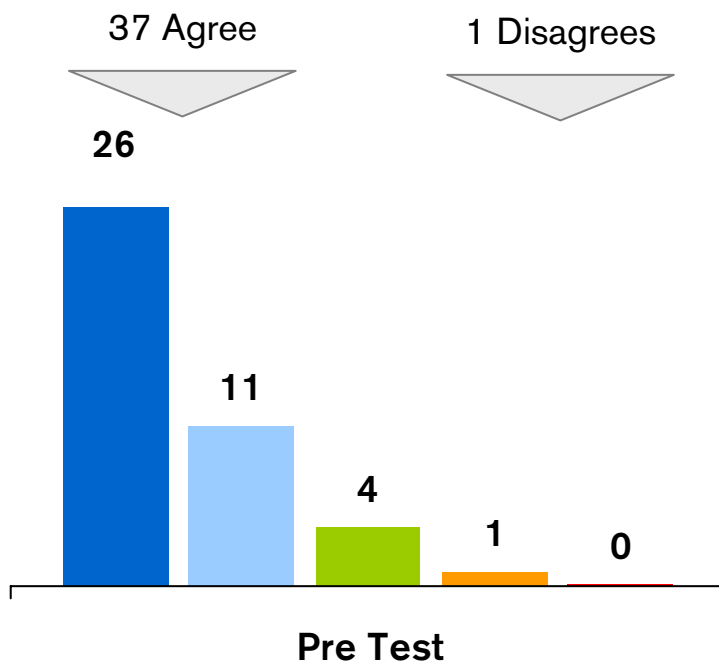


Limited room to grow for savings importance

Q

Whether you contribute to a pension plan or save some other way, it is important to build up your own personal savings and investments.

 =  No difference of opinion between gender



■ Strongly agree ■ Somewhat agree
■ Neither ■ Somewhat disagree
■ Strongly disagree

■ Strongly agree ■ Somewhat agree
■ Neither ■ Somewhat disagree
■ Strongly disagree

Paired T-test:

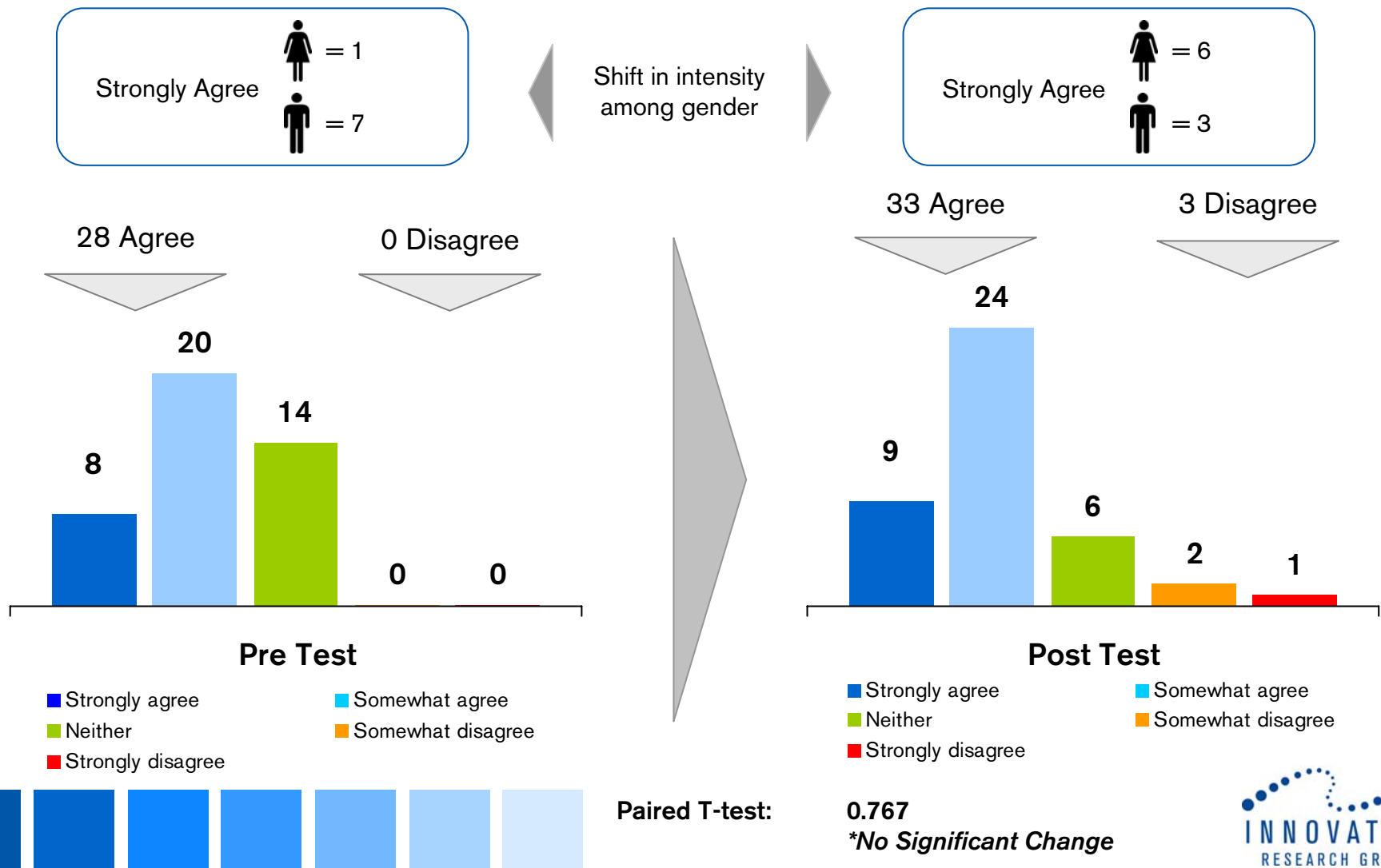
0.197

*No Significant Change

Personal responsibility a stable value



Q

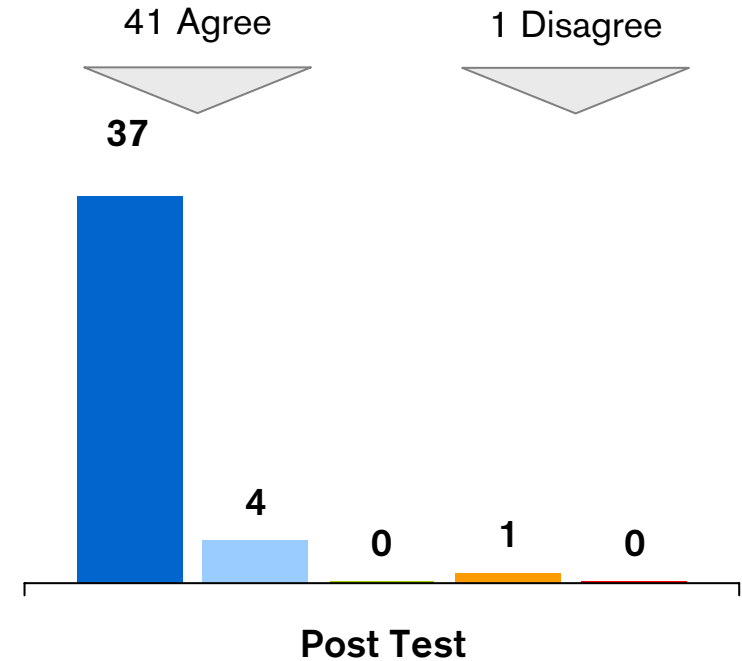
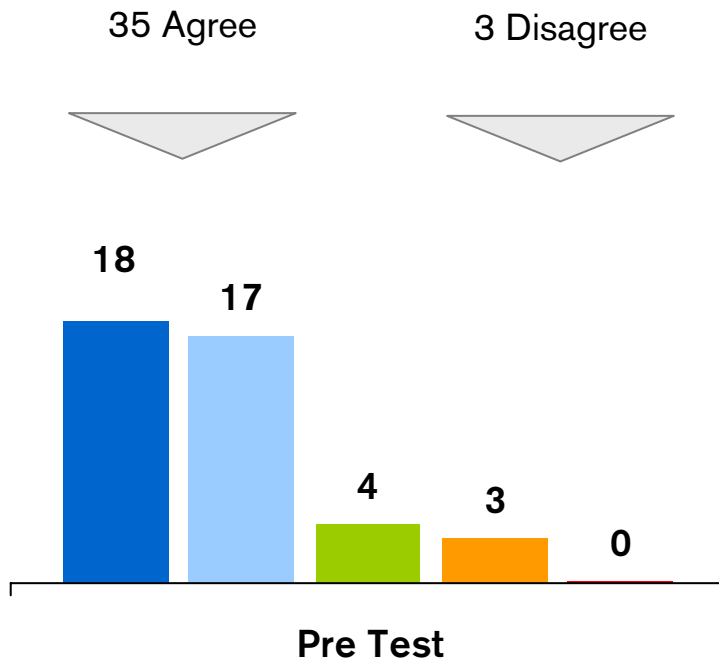
It is the responsibility of the individual to acquire the skills they need to make sound investment decisions.



Strong agreement on need for research doubles

Q You should never make an investment without doing independent research on any new investment opportunity.

 =  No difference of opinion between gender



■ Strongly agree ■ Somewhat agree
■ Neither ■ Somewhat disagree
■ Strongly disagree

■ Strongly agree ■ Somewhat agree
■ Neither ■ Somewhat disagree
■ Strongly disagree

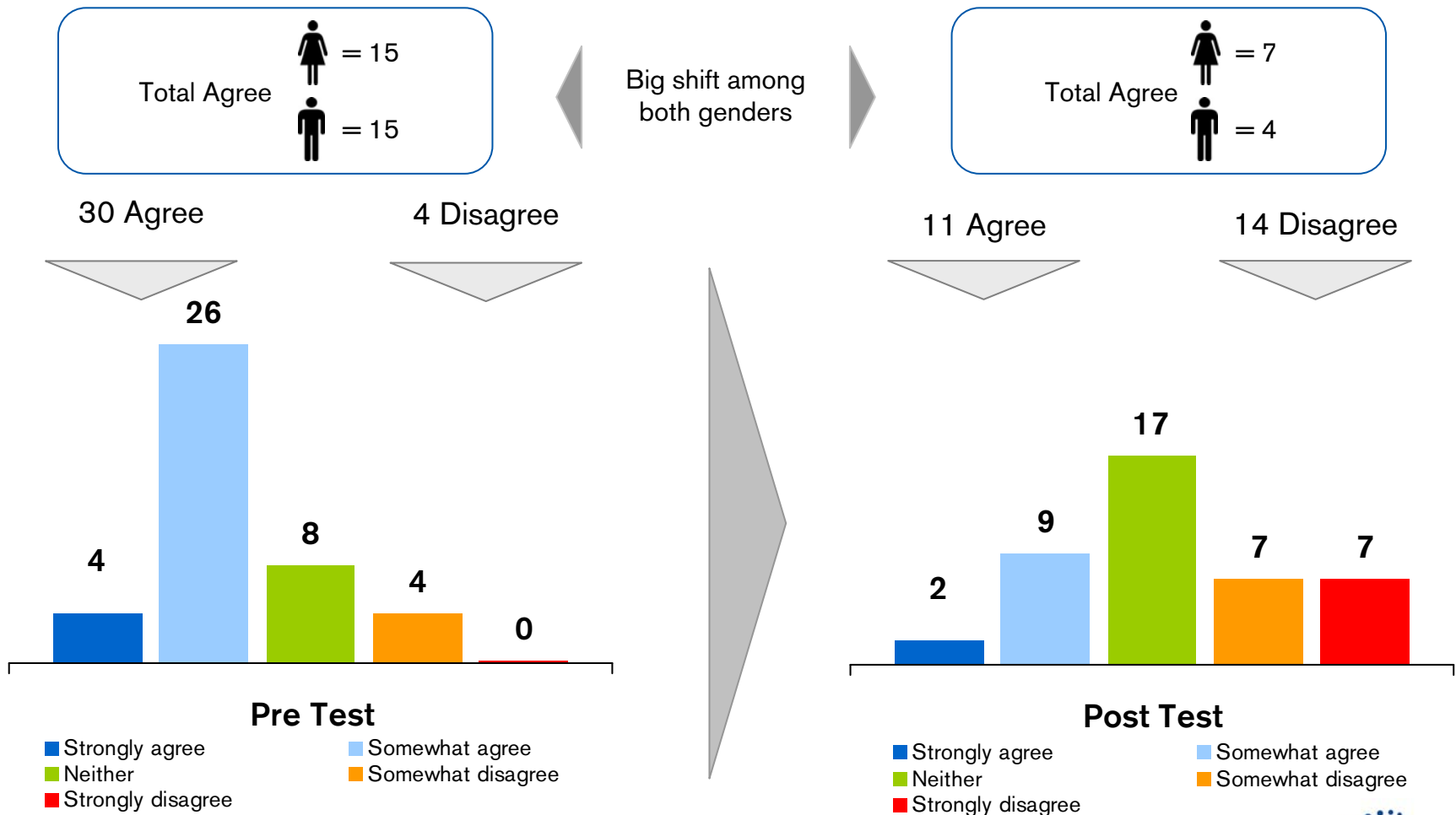
Paired T-test:

0.000

**Significant Change at 95%*

Significant improvement in need to pause

Q If you don't act immediately on a new investment opportunity you have recently heard about, you may miss a good opportunity.



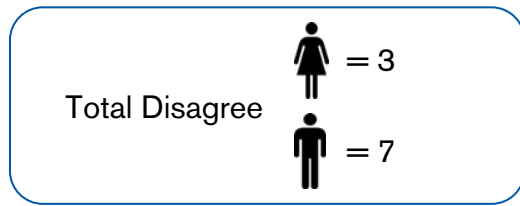
Paired T-test:

0.000

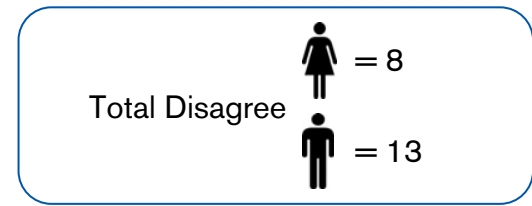
***Significant Change at 95%**

Number who disagree on need for risk doubles

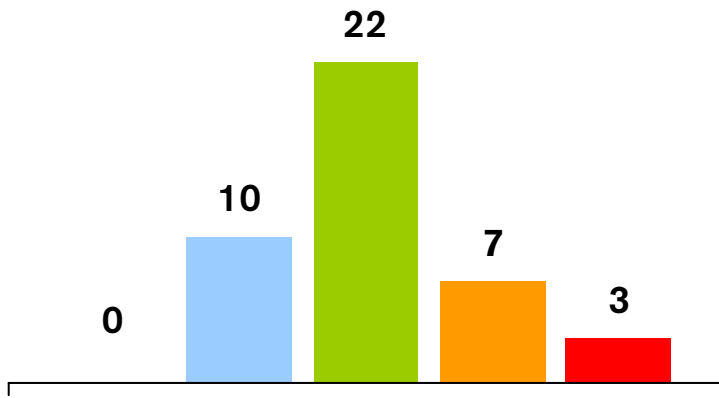
Q The only way to make good returns in the stock market is to make risky investments.



Shift among genders



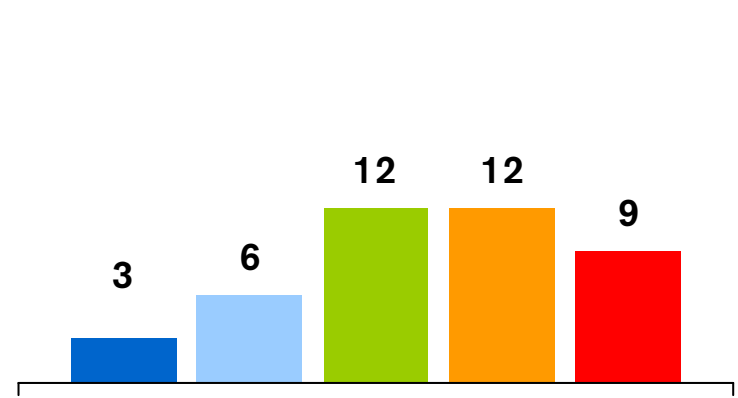
10 Agree 10 Disagree



Pre Test

- Strongly agree
- Somewhat agree
- Neither
- Somewhat disagree
- Strongly disagree

9 Agree 21 Disagree



Post Test

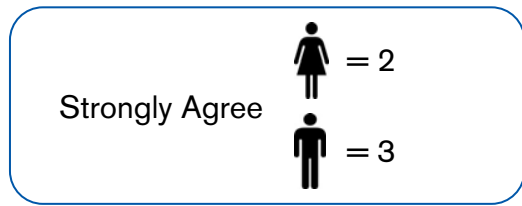
- Strongly agree
- Somewhat agree
- Neither
- Somewhat disagree
- Strongly disagree

Paired T-test:

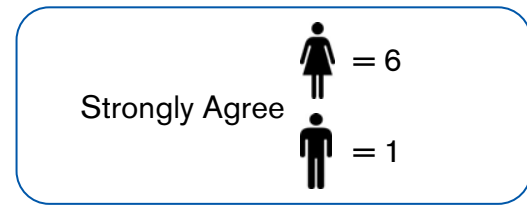
0.062
 *Significant Change at 90%

Limited gains on danger of inside tips

Q One of the best ways to make money in the stock market is to look for inside tips.

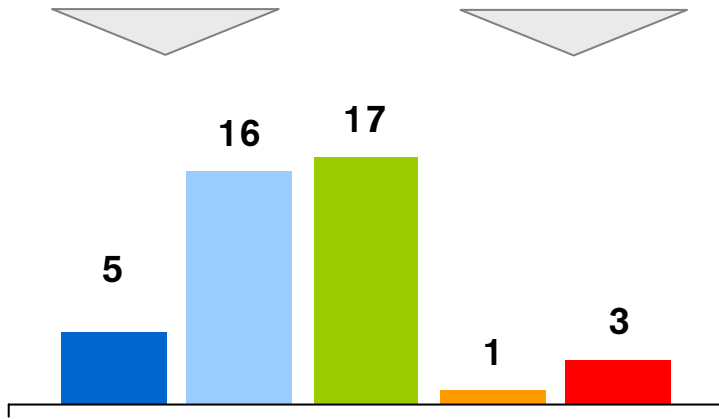


Risks of *inside tips* not effectively communicated to female students



21 Agree

4 Disagree

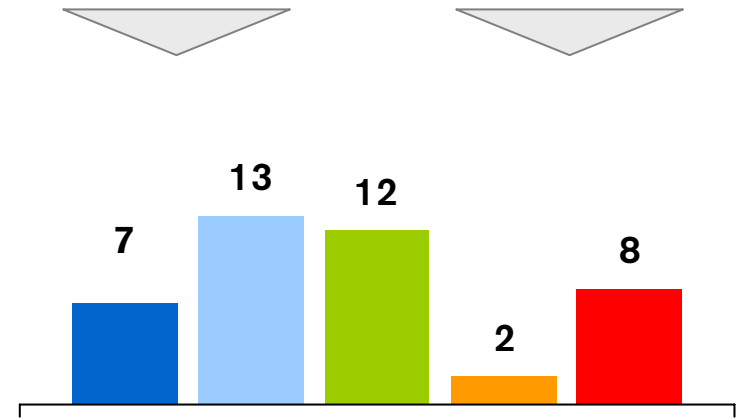


Pre Test

- Strongly agree
- Somewhat agree
- Neither
- Somewhat disagree
- Strongly disagree

20 Agree

10 Disagree



Post Test

- Strongly agree
- Somewhat agree
- Neither
- Somewhat disagree
- Strongly disagree

Paired T-test:

0.177
*No Significant Change

Investment Fraud Awareness

Strong gains in fraud awareness

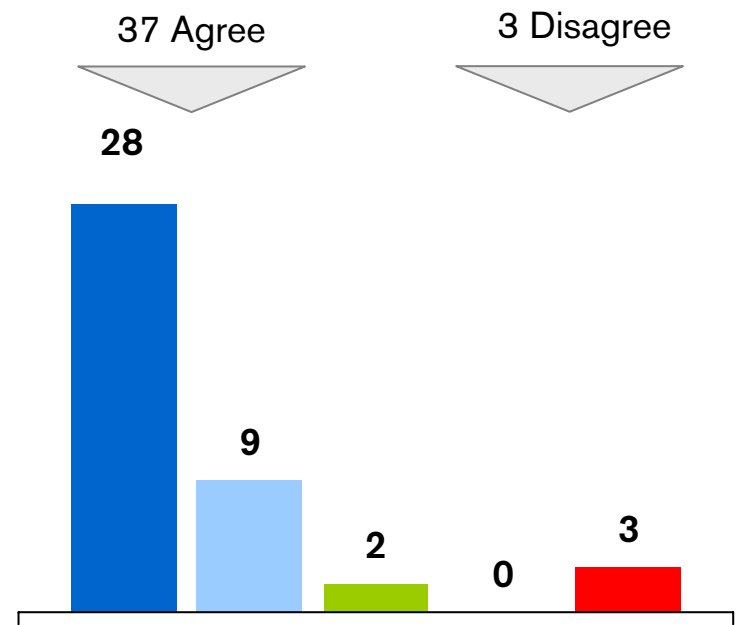
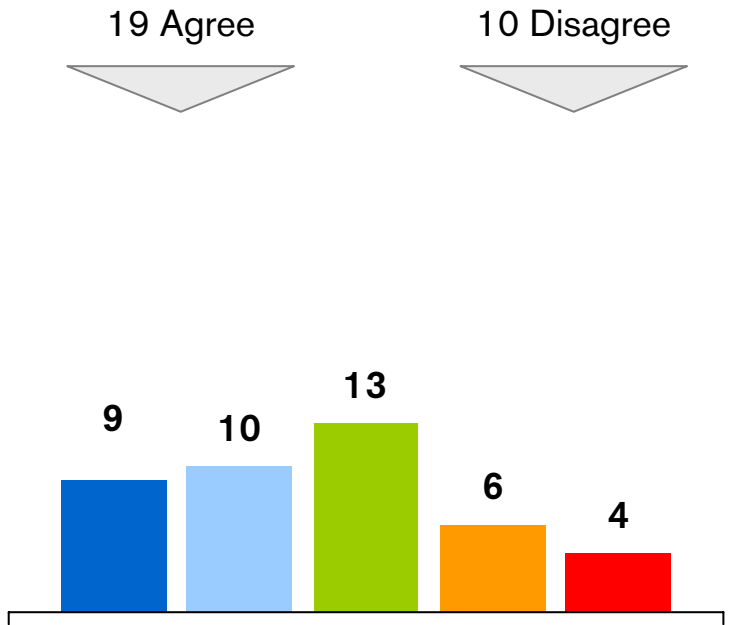
- At the beginning of the class, 19 students felt they could be a victim of fraud, by the end 37 felt that way with a three fold jump in strong agreement.
- Agreement that fraud is rampant doubled, but half the class was still uncertain.
- While the need to report even the suspicion of investment fraud had strong initial support with 31 agreeing at the start of the course, it still grew to 40.
 - Eight more students strongly agree that it is important to report even the suspicion of investment fraud.
- There was no significant increase in the view that victims have only themselves to blame.



Strong agreement triples on chance of fraud

Q I am just as likely to be a victim of investment fraud as anyone else.

= No difference of opinion between gender



■ Strongly agree ■ Somewhat agree
■ Neither ■ Somewhat disagree
■ Strongly disagree

■ Strongly agree ■ Somewhat agree
■ Neither ■ Somewhat disagree
■ Strongly disagree

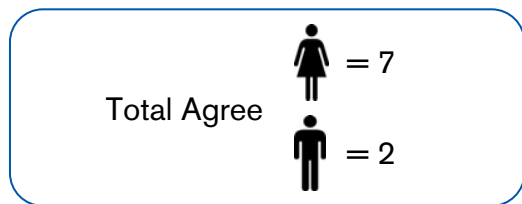


Paired T-test: **0.000**
**Significant Change at 95%*

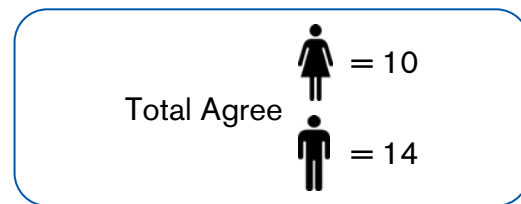
Agreement doubles, but uncertainty still high when asked about investor fraud within province



Investment fraud is rampant in my province.



Shift among male students very significant

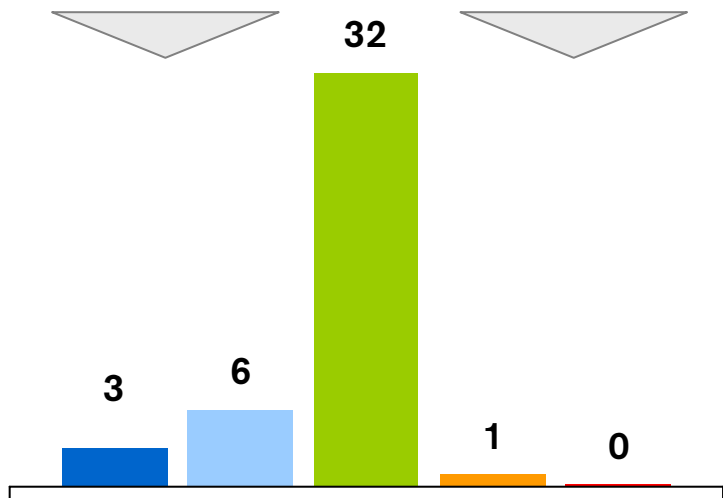


9 Agree

1 Disagree

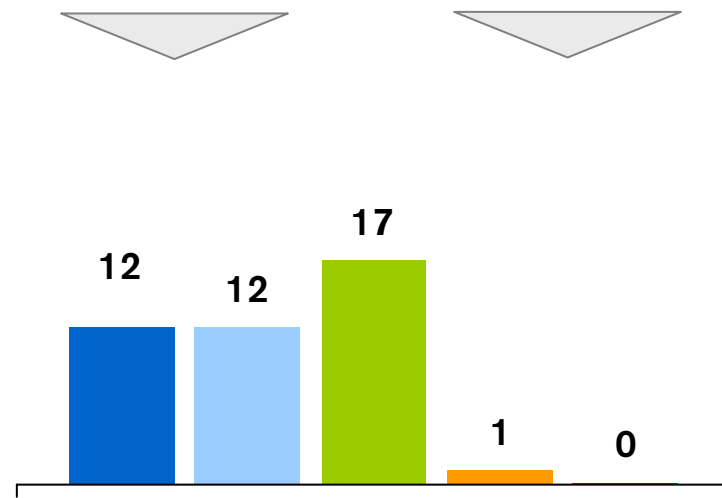
24 Agree

1 Disagree



Pre Test

- Strongly agree
- Somewhat agree
- Neither
- Somewhat disagree
- Strongly disagree



Post Test

- Strongly agree
- Somewhat agree
- Neither
- Somewhat disagree
- Strongly disagree

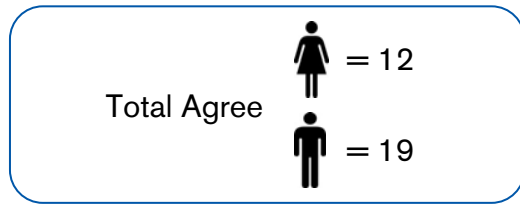
Paired T-test:

0.000
*Significant Change at 95%

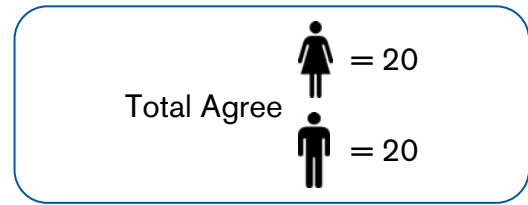


Need to report grows from strong start

Q It is critical for people to report even the suspicion that someone has approached them with an investment fraud.



Shift among female students very significant

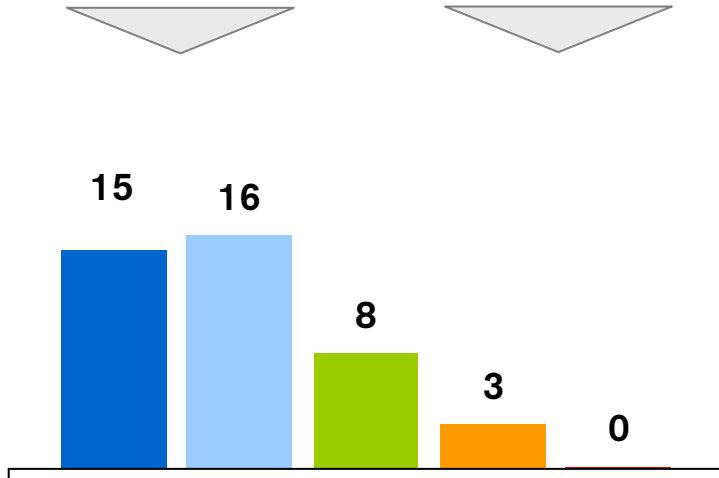


31 Agree

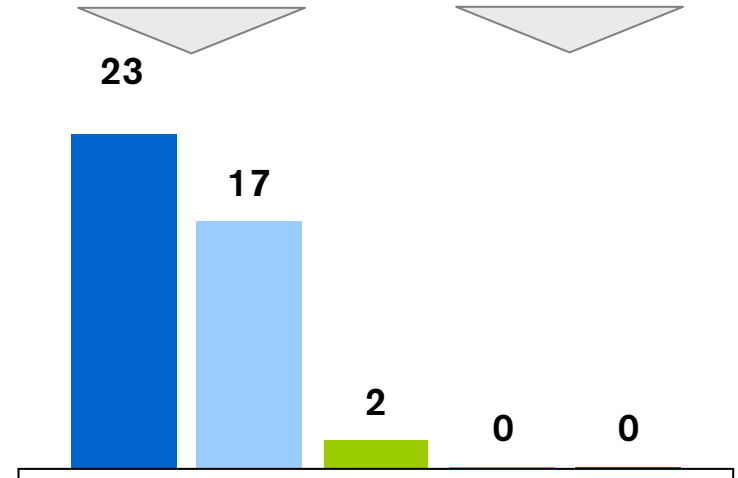
3 Disagree

40 Agree

0 Disagree



Pre Test



Post Test

- Strongly agree
- Somewhat agree
- Neither
- Somewhat disagree
- Strongly disagree

- Strongly agree
- Somewhat agree
- Neither
- Somewhat disagree
- Strongly disagree

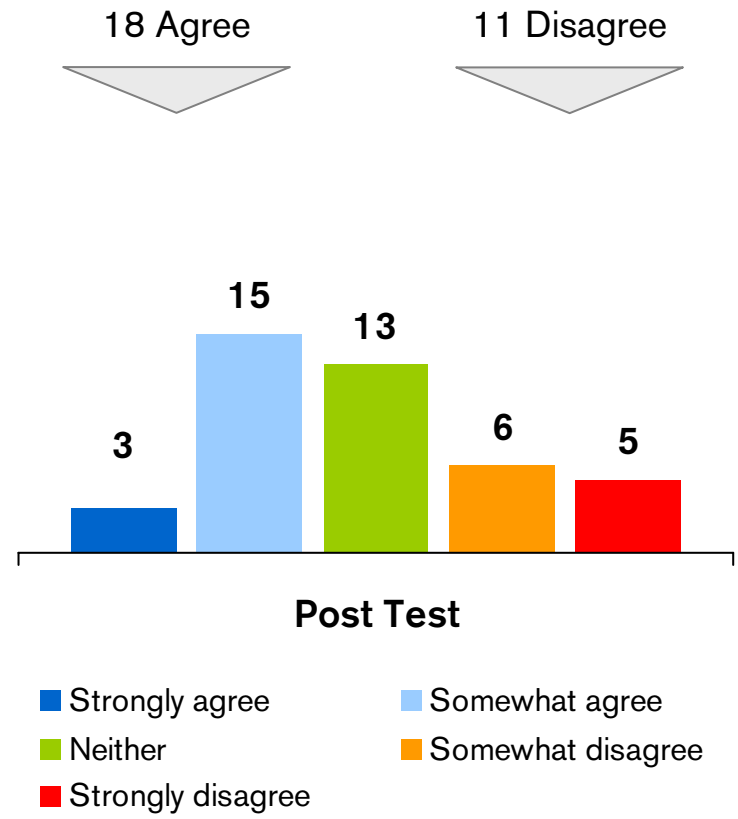
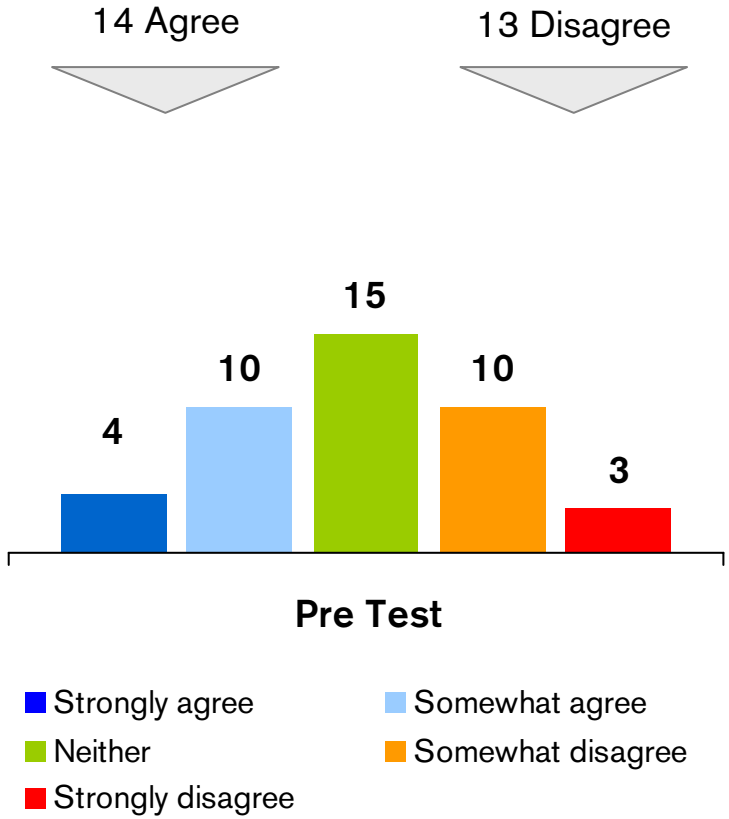
Paired T-test:

0.000
**Significant Change at 95%*

Blame the victim does not grow significantly

Q Buyer beware: if someone gets ripped off by an investment fraud, they have only themselves to blame.

= No difference of opinion between gender



Paired T-test:

0.715
*No Significant Change



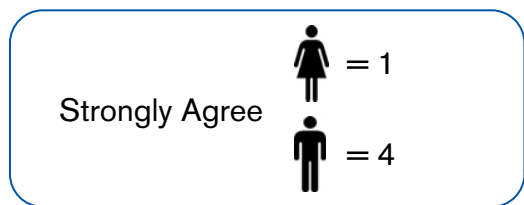
Investor Confidence

Students confident in ability to find information

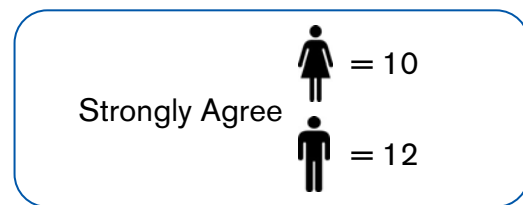
- While 21 felt confident they knew where to find information on investing at the start of the course, 40 of 42 agreed by the end
 - Strong agreement rose from 5 to 22.
- While the number of students who said they were moderately confident in their investing skills grew from 21 to 27, overall growth in confidence failed to meet the test of significance.
 - This is good news as overconfidence leaves investors vulnerable to a large numbers of risks.

Almost all students feel confident they know where to look for information about investing

Q I am confident I know where to look if I want to learn more about investing skills.



Shift among both genders students very significant

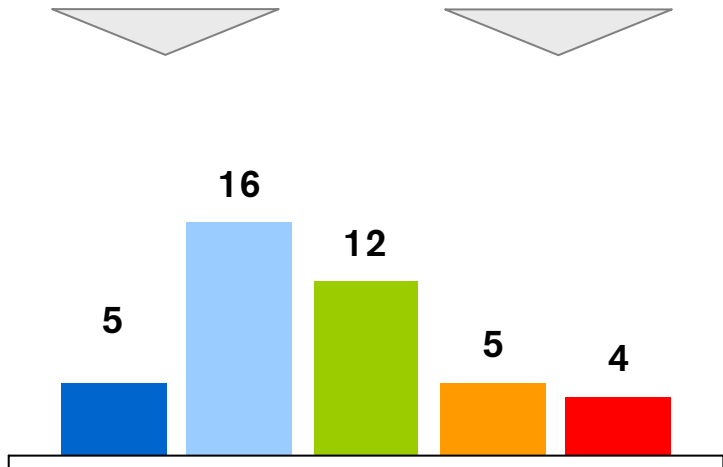


21 Agree

9 Disagree

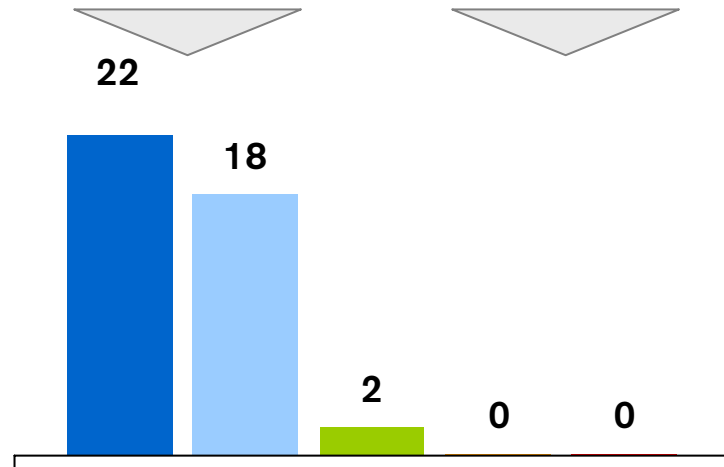
40 Agree

0 Disagree



Pre Test

- Strongly agree
- Somewhat agree
- Neither
- Somewhat disagree
- Strongly disagree



Post Test



- Strongly agree
- Somewhat agree
- Neither
- Somewhat disagree
- Strongly disagree

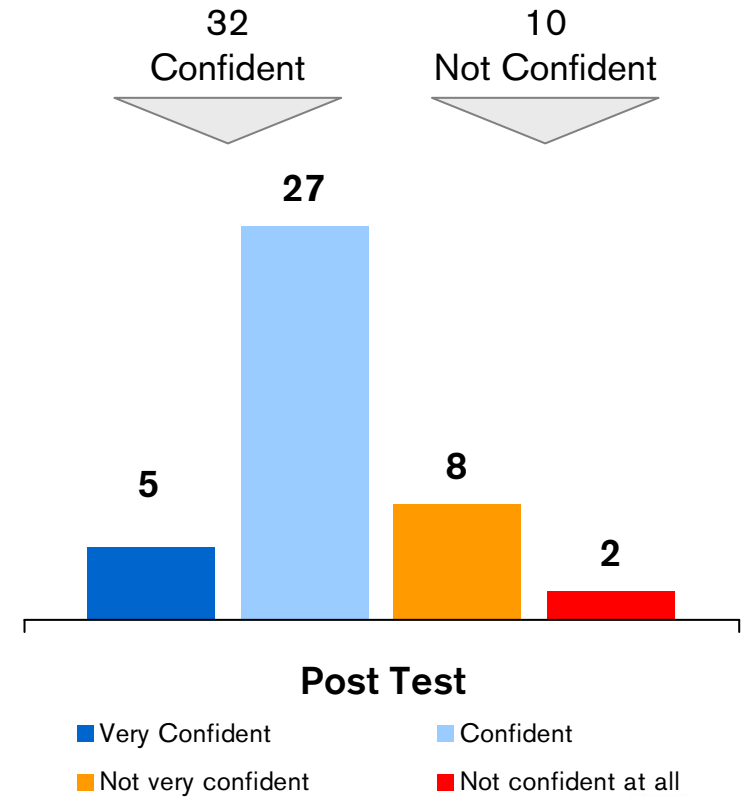
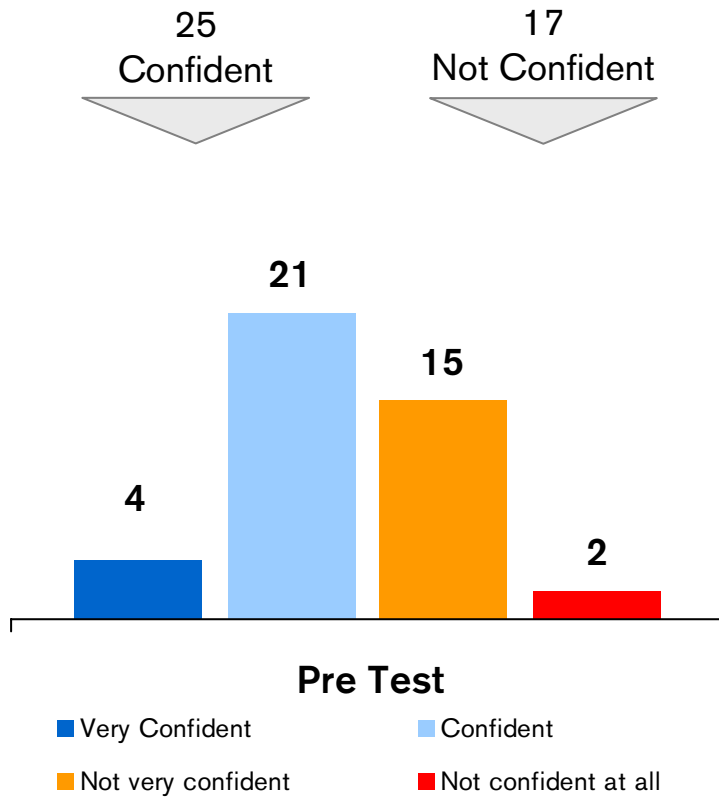
Paired T-test:

0.000
**Significant Change at 95%*

No gain in overconfidence

Q How confident are you when it comes to making investment decisions?

 =  No difference of opinion between gender



Paired T-test:

0.295

**No Significant Change*

Materials Evaluation



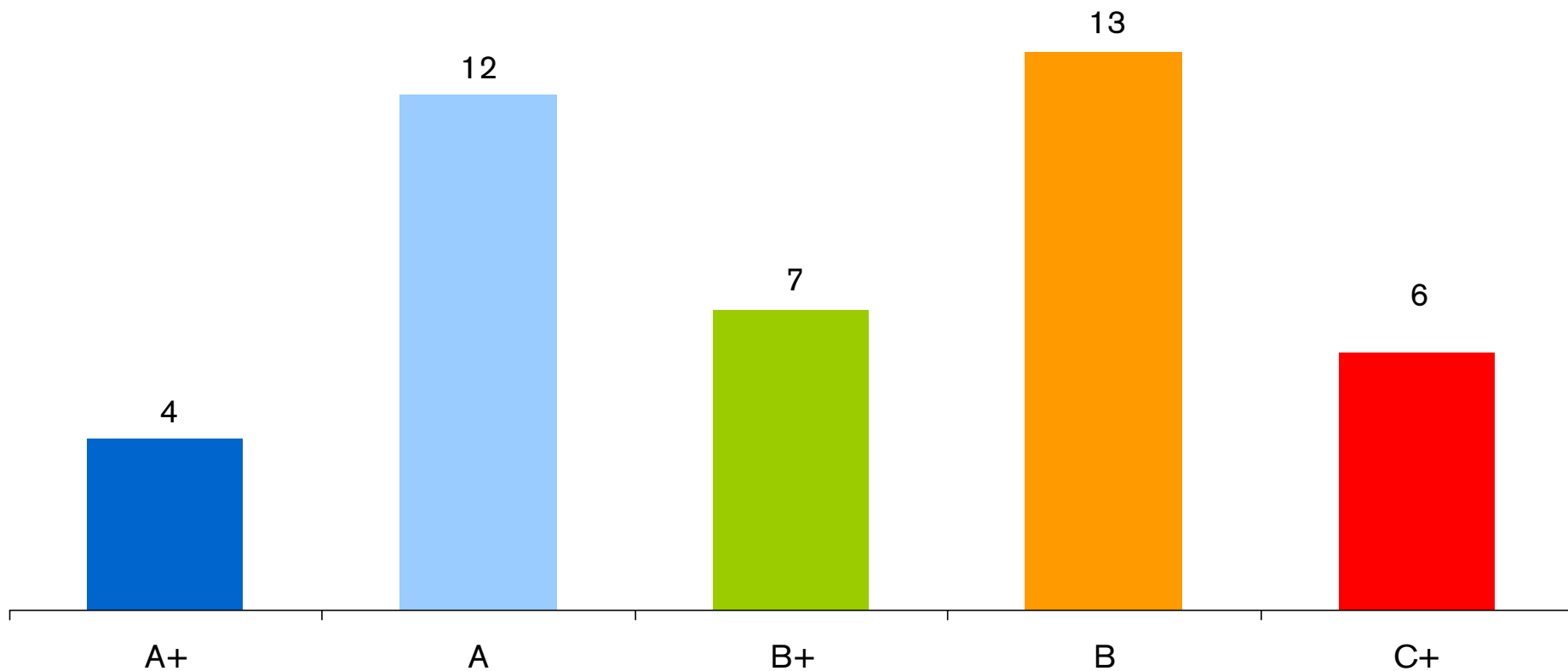
Almost 4-in-10 students give *Financial Life Skills for Planning 10* an 'A+' or 'A'

Q

If you could give the *Financial Life Skills for Planning 10* course an overall grade, what would it be?



No difference of opinion
between gender



A+

A

B+

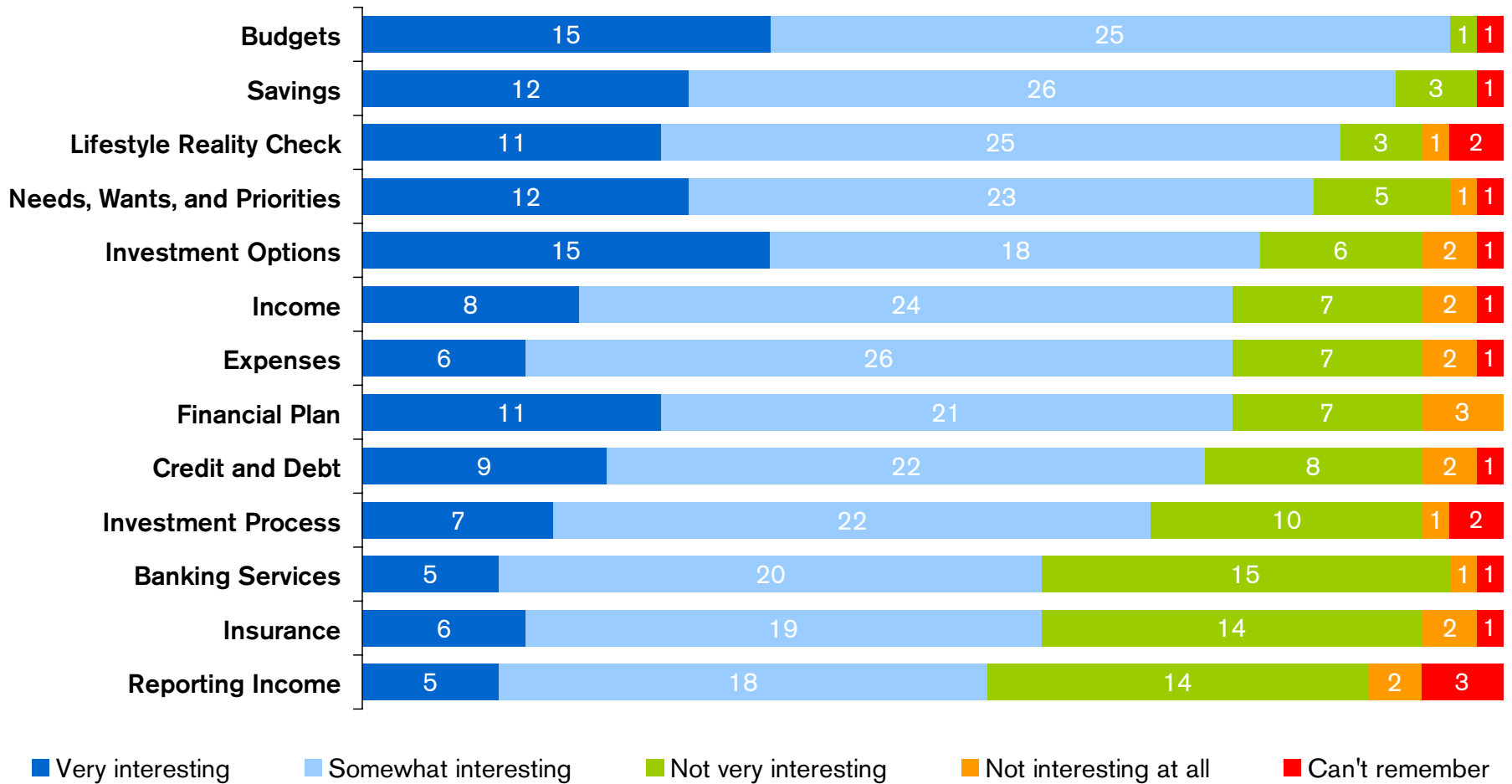
B

C+

Note: 'Don't know' not shown

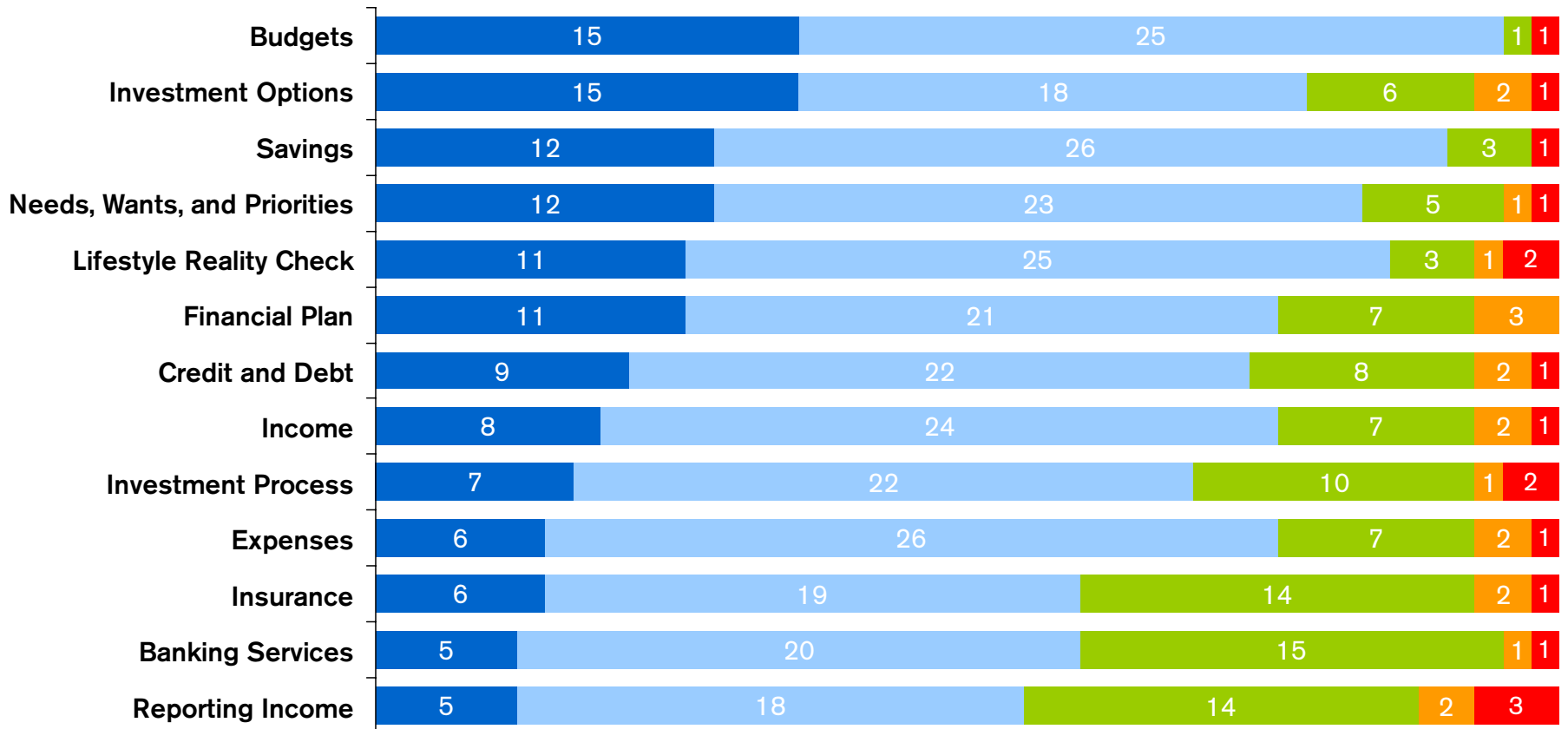
Interest in Subject Area

Q How interesting did you find ... (ranked by 'Total Interest')



Interest in Subject Area {2}

Q How interesting did you find ... (ranked by 'Intensity in Interest')



Very interesting

Somewhat interesting

Not very interesting

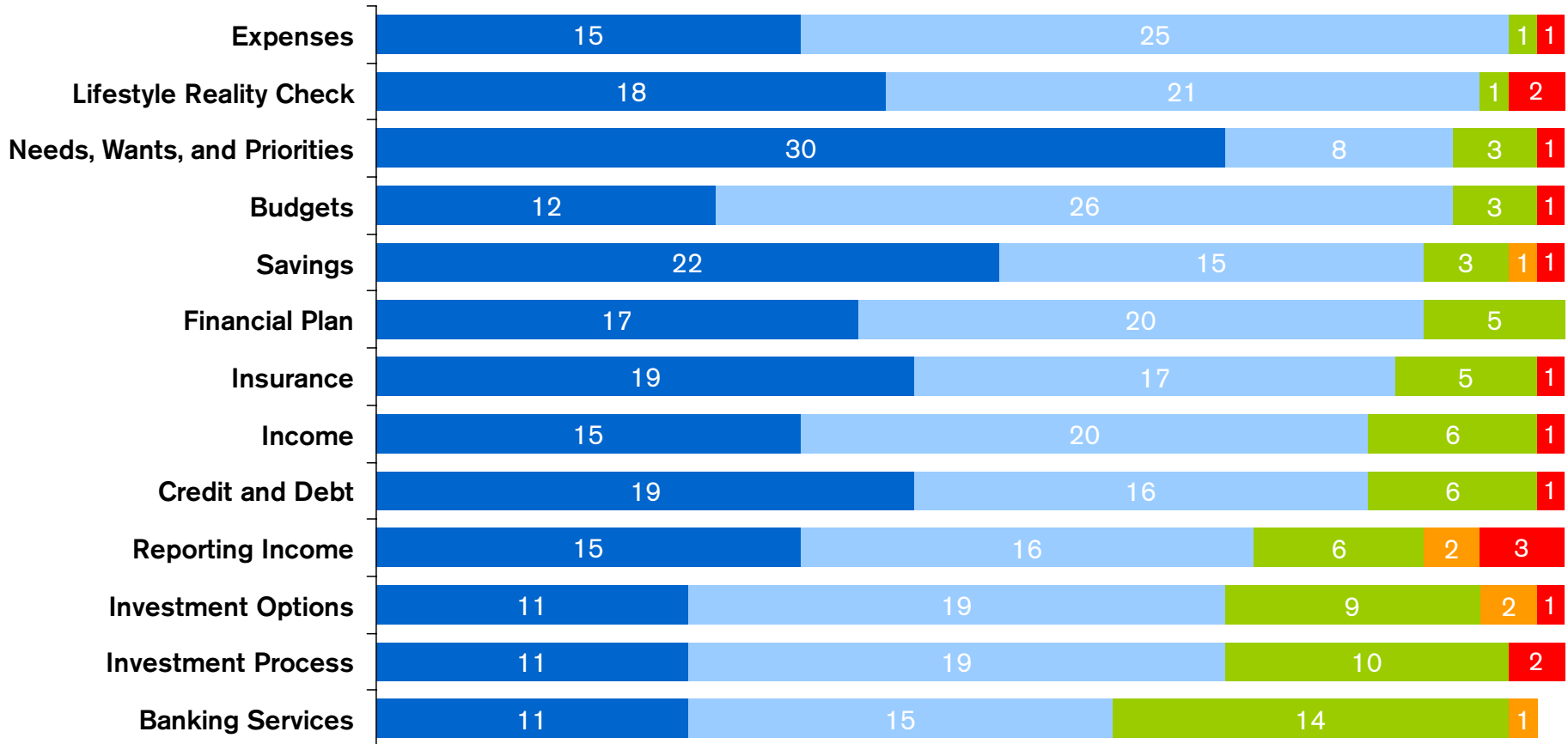
Not interesting at all

Can't remember

Ease of Understanding

Q

How easy to understand was the section on ... (ranked by 'Total Ease of Understanding')



Very easy to understand

Somewhat easy to understand

Not very easy to understand

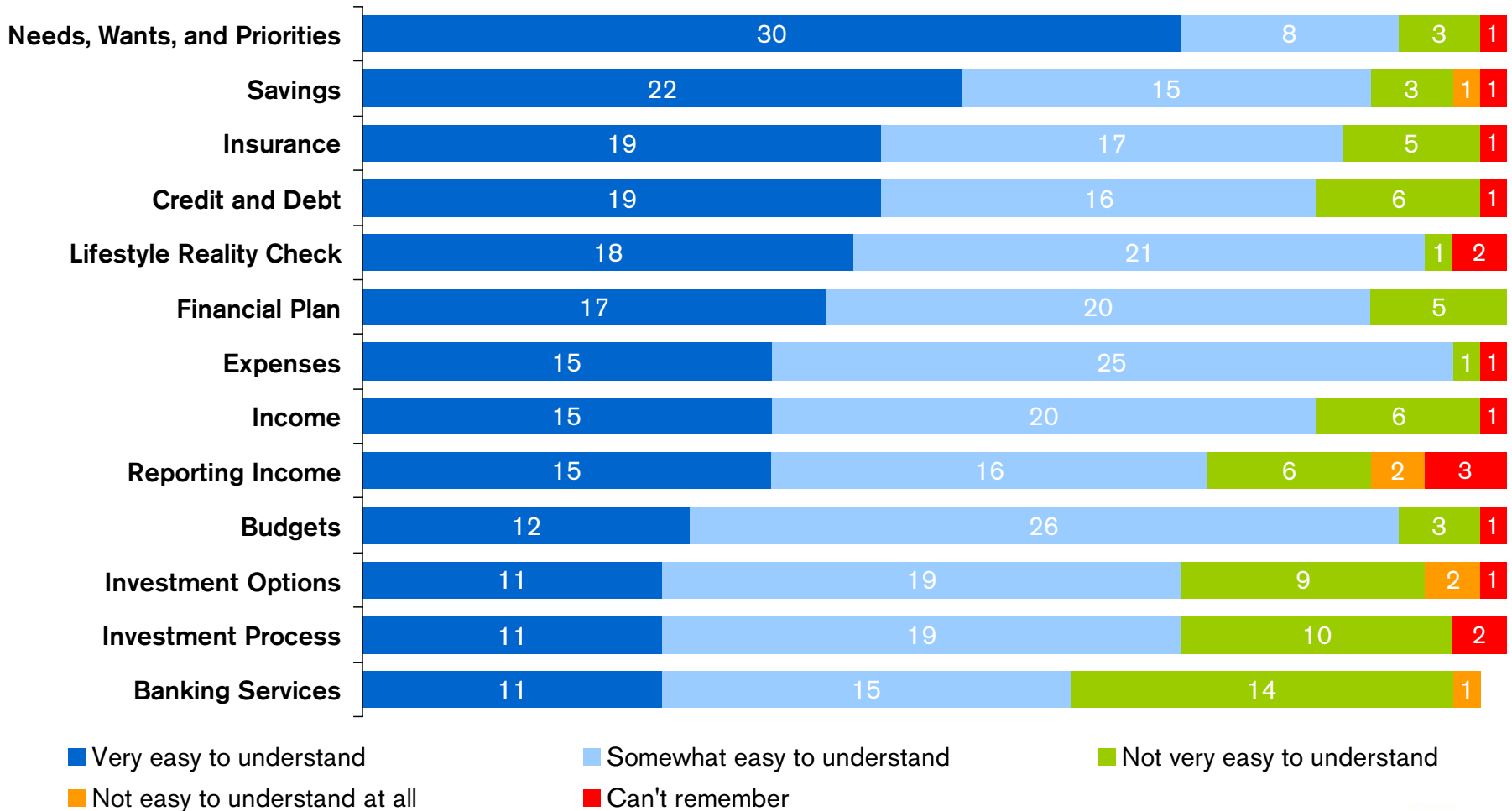
Not easy to understand at all

Can't remember

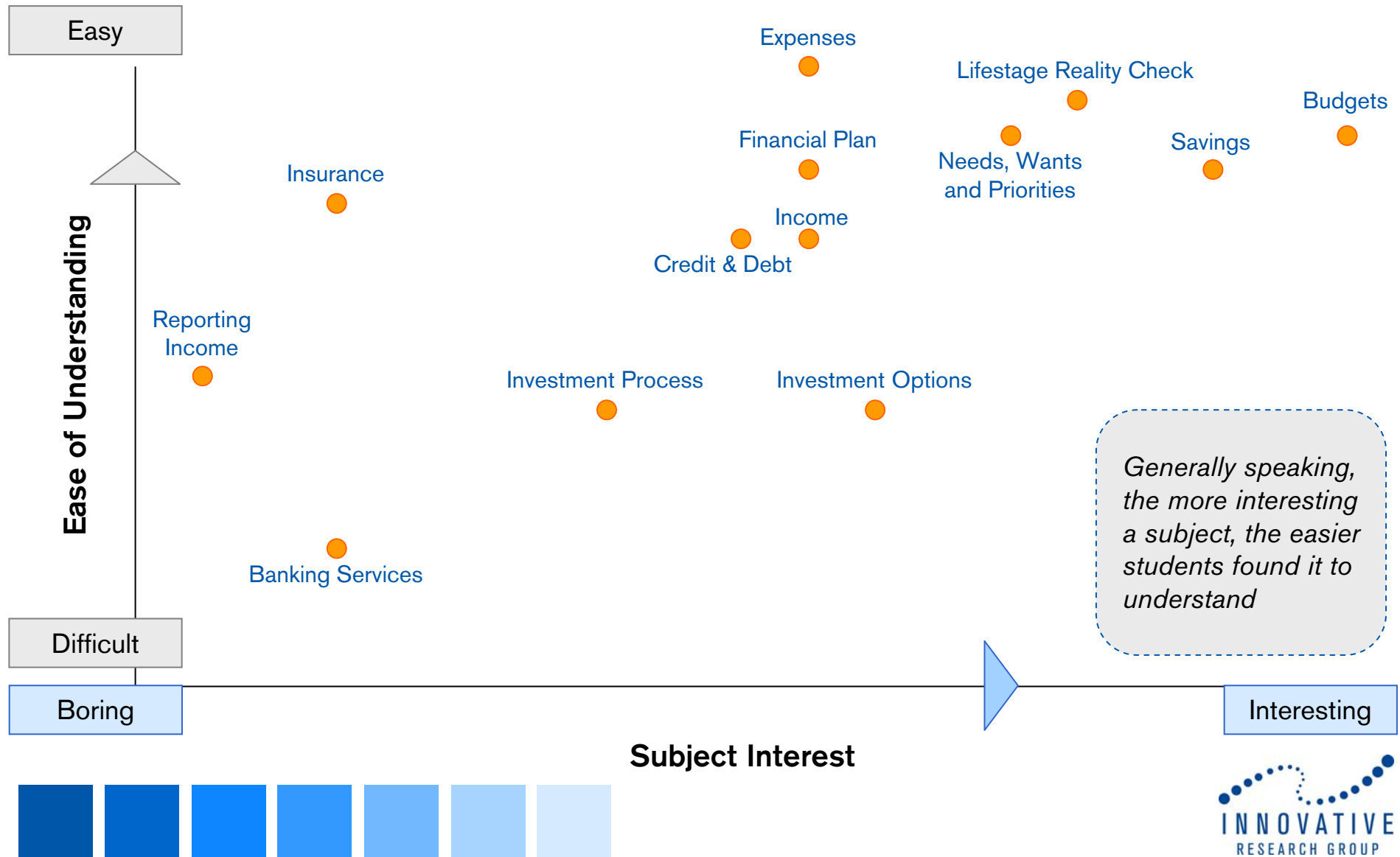
Ease of Understanding {2}



How easy to understand was the section on ... (ranked by 'Intensity of Ease of Understanding')



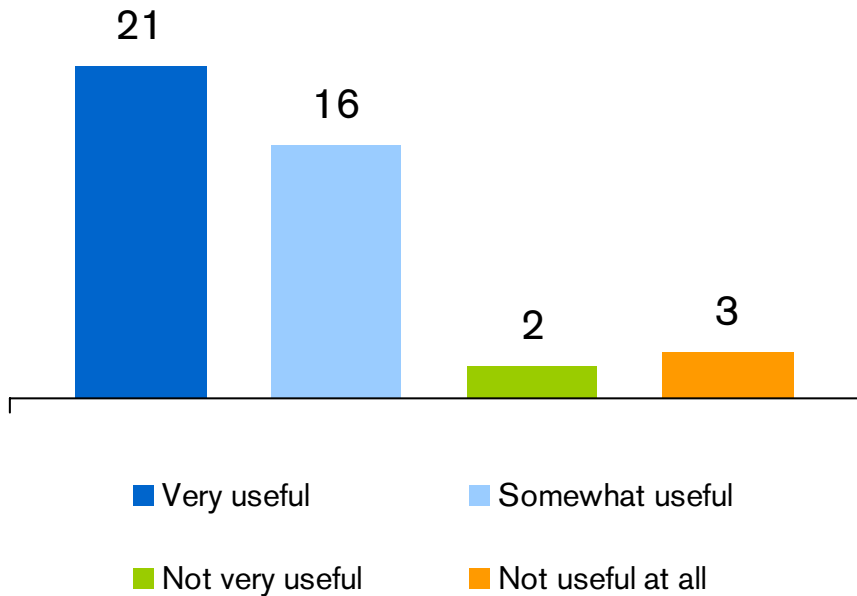
Clear Relationship Between Subject Interest vs. Ease of Understanding ⁴⁰



Lifestage Characters largely viewed as useful and interesting by both male and female students

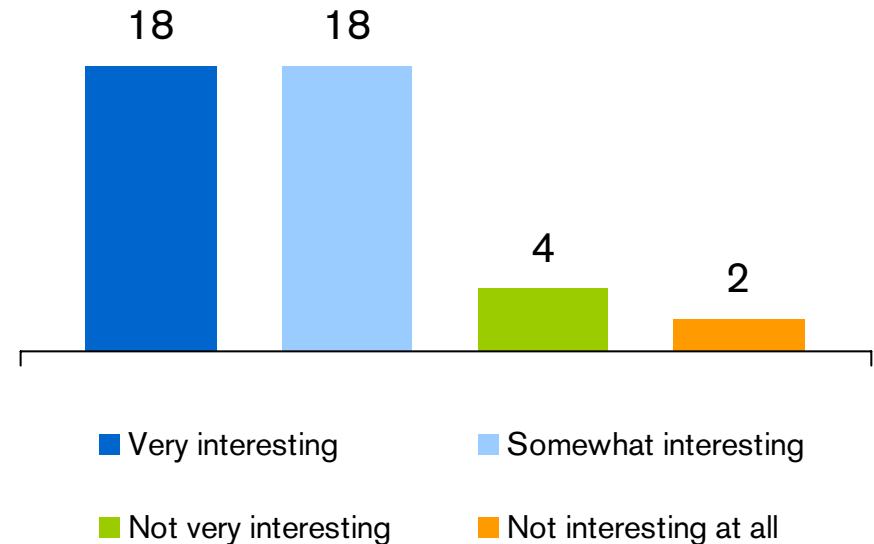
Q

How useful were the Lifestage Characters in helping to explain financial concepts?



Q

How interesting did you find the Lifestage Characters and the storyline associated with them?



When asked in discussion groups, vast majority of females found the Lifestage Characters and the storyline associated with them very interesting and useful in explaining financial concepts.

However, the Post-Test Questionnaire reveals that an equal number of males and females found the Lifestage Characters interesting and helpful in explaining explain financial concepts.

Materials Evaluation

Lifestage Characters

General Observation

Upon initial observation, the storylines and narration surrounding the Lifestage Characters came across as mature and in some cases rather edgy.

Student Feedback

When asked if the storylines were appropriate, students overwhelmingly thought (with the exception of one) that they were interesting, grabbed their attention and made learning the financial concepts fun and easier.

What Worked

“*Readers’ Theatre*” is an exercise where student rehearse the roles of the story and act them out while reading from a script. This exercise allowed student to get into their appointed character roles.

What was Problematic

Collage exercises were a “mixed bag” with some students very much enjoying the hands on approach while others questioned the merits of this exercise and its ability to teach financial concepts.

This approach, of course, depends on the dynamic of the classroom and should be left to the teacher’s discretion.

Materials Evaluation {2}

Part 2: Lifestage Reality Check

General Observation

Overall, this exercise proved useful in illustrating the cost of living reality.

Students struggled initially in deciding what kind of career they wanted to choose for this exercise. At 15-16 years, career/education decisions seem very far away.

Student Feedback

Although initially confusing for students that didn't have a clear idea of their future career path, this exercise not only emphasizes the reality of what it costs to live, but got students thinking about the choices they would have to make in the not so distance future about Lifestage, career decisions and the costs associated with each.

Teacher Feedback

Getting caught up on the topic of career choices will cost time (of which is very limited in this course). The point of this exercise is to emphasize that different Lifestages have different costs, and in many cases, sacrifices have to be made.

What Worked

Group discussion on what surprised everyone about results of Lifestage reality check worked well and set the foundation for the following units.

What was Problematic

Career planning decisions are a big component of everyone's life – yet in this course, these decisions get skimmed over. The jump for many students is big.

From the discussion, for some students that arbitrarily chose a career, the “reality check” was less meaningful as it “didn't really apply to them” because their career wasn't reflective of their future earning potential.

Recommendation: that the Career and Education component of Planning 10 always come before the Financial Life Skills component.

In situations where the Career and Education component cannot to taught before the Financial Life Skills component, an expanded lesson on Careers/Education is recommended.

Materials Evaluation {3}

Part 4: Needs, Wants, Priorities

General Observation

The Shopping Exercise had many fictitious purchasing decisions that did not apply to the students in the classroom.

- Items like transportation, books and school items do not factor into the purchasing decisions of students.
Students tuned out of the exercise as they realized many of the purchasing decisions did not apply to them.
- Furthermore, students from different socio-economic backgrounds may make very different “purchasing” decisions, which again may alienate some student from their peers.

Such an exercise might better be illustrated using only the Lifestage Characters.

Part 5-7: Income, Expenses and Budget

General Observation

With Income and Expenses, many of the issues do not apply to students as they a) don't generally have jobs or b) any expenses outside of entertainment.

In terms of different socio-economic backgrounds, sharing with the class or in a group one's personal income (allowance) and expenses (purchasing habits) might in some circumstances alienate particular students.

Again, this exercise would be best illustrated exclusively through the Lifestage Characters.

With the exception to fixed vs. variable expenses, the content in the income/expenses/budget sections was relatively straightforward – but took a lot of time due to the repetitive nature of the material.

Teacher and General Feedback

Group these three sections together.

Materials Evaluation {4}

Part 8: Savings

Teach and General Observation

Materials and examples provided in the Financial Life Skills are excellent.

Simple vs. compounded interest had a lasting impact on the students.

What was Problematic

The concept of compounded interest was powerful on its own – including mathematical exercises were unnecessary and lost many of the students.

Part 9: Banking Services

General Observation

Students were bored and confused.

Teacher and General Feedback

This section could be summed up with a brief statement about “as a consumer, you have choices and should compare the services available to you by competing banks” ... and then move on.

There was a strong feeling among the instructors that understanding how the banking system worked was not necessary information to making informed choices among products and services.

Materials Evaluation {5}

Part 10: Credit and Debt

General Observation

Although, perhaps more applicable than banking services, the concept of credit cards seems far removed from the current reality facing these 15 and 16 year olds.

Part 11: Insurance

Teacher and General Observation

Content was not applicable to students.

Should be exclusively illustrated through Lifestage Characters.

- **Note:** There was strong feedback that slide 11-2 in teaching package does not make sense. It confused students and teachers alike.

Part 12: Investment Options

General Observation

A lot of information was presented in a very short time.

Students had a lot of questions and expressed a lot of interest in this area – however, teachers were ill equipped to answer fully due to a lack of knowledge in this area of expertise.

It will be important that teaching resources are well prepared to answer student questions in this area OR point students to the proper resources where they can find answers to their questions.

Materials Evaluation {6}

Part 13: Investment Process

General Observation

Video content was excellent and helped students better understand investment options (*Indigo seeks financial advice*).

Again, a lot of content was provided over a very short period of time.

Exercises asked students to create an investment portfolio and consider concepts such as diversification and liquidity of assets.

Unfortunately, students got little out of this exercise as few understood what the terms meant or what types of investments were liquid and/or comprises a diversified portfolio.

The role-play exercise was an excellent way of bringing together the financial concept that students had learned throughout the week.

Part 14: Reporting Income

General Observation

Students had very little interest in this component of the material as there was little to no application to their reality.

Part 15: Financial Plan for Transition

General Observation

Budget vs. Financial Plan: this section had a lot of information which the students had difficulties absorbing. Emphasis should be put on simple concepts such as:

- Budget: current income and expenses
- Financial Plan: long-term income and expenses

Although, unlike other components which had little relevance to a student's personal experience, the *My Financial Plan* package included in this section was deemed as one of the most useful take-aways.

My Financial Plan template/package makes a good reference piece and summarizes many of the concepts learned throughout the program.

