

Castle Park High School SCR Team's CS-LISTEN Research Question:





To what extent do stigmas revolving around computer science limit students' participation?



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Castle Park Demographic Data

	State Demogr N = 1600	aphic Data*	Survey Demographic Data N = 150		
	Number of Students	Percentage of Students	Number of Students	Percentage of Students	
African American	30	1.88%	6	4.0%	
American Indian or Alaska Native	5	5 0.31%		0.7%	
Asian	8	0.5%	1	0.7%	
Filipino	38	2.38%		2.0%	
Hispanic or Latino	1,440	90%	115	76%	
Pacific Islander	4	0.25%	0	0%	
White	17	1.06%	5	3.3%	
2 or more races	2	0.13%	19	12.6%	

* From https://dq.cde.ca.gov/dataquest/



Gender

Grade Level

<u>Gender</u>	<u>Number of</u> <u>Students</u>	Percentage of Students
Male	77	51%
Female	73	49%

<u>Grade</u>	<u>Number of</u> <u>Students</u>	Percentage of Students
9	78	52%
10	45	30%
11	15	10%
12	12	8%

Have you taken a computer science course?



Computer Science Enrollment

From Gradebook Data of Students who took CS courses

	19-20			18-19			17-18			16-17			15-16		
		СРН			CSP			CSP			СРН			СРН	
Grade	СРН	cs	%												
9	354	8	2.26%	399	4	1.00%	433	15	3.46%	409	18	4.40%	403	1	0.25%
10	416	2	0.48%	424	2	0.47%	442	9	2.04%	442	8	1.81%	366	7	1.91%
11	397	3	0.76%	405	8	1.98%	444	13	2.93%	354	11	3.11%	375	12	3.20%
12	433	4	0.92%	447	21	4.70%	352	6	1.70%	402	6	1.49%	389	11	2.83%
Total	1600	17	1.06%	1675	35	2.09%	1671	43	2.57%	1607	43	2.68%	1533	31	2.02%

5 year Average Enrollment in CS Courses: 34 students or ~ 2% of CPH students

Of those surveyed: What do you think about Computer Science?

	<u>Number of</u> <u>Students</u>	Percentage of <u>Students</u>
Interesting	38	25.33%
Somewhat Interesting	64	42.67%
Not Interesting	37	24.67%
Other	11	7.33%



Somewhat Interesting

Other

Interesting

Not Interesting

Why have you not participated in computer science?

Hispanic / Latino



Caucasian / White



Lack of interestLack of knowledgeDo not have timePlanning on taking it

African American / Black



Two or more



What words do you associate with Computer Science?

Hispanic / Latino



Caucasian / White



African American / Black

Two or more

Fun Nerdy Boring Difficult Other





WHY or WHY NOT do you think computer science is important?

Do you believe students should take a Computer Science course? EXPLAIN.

^o To what extent do stigmas revolving around computer science limit students' participation?

- Not interested
- Boring
- Views of CS as discipline
- Difficult
- Course-related issues
- Scheduling

Not interested

"I am not interested"

"doesn't seem that interesting"



"It seems boring"

"I would take it if it were more fun"



"it's wack"

"because i'm not a nerd"



"It seems like a lot of work"

"I would take it if it were less difficult."



"To know more about what it is and how it helps me"

"I don't know what it has to offer"

"Make it seem easy and fun"

"I don't know where to go to sign up, and i haven't really learned much about it or heard about this course"



"I had to take other elective classes and if i hadn't toke (sic) those i could've probably gave it a try"

"I want to finish my A-G requirements first and then I'll see my other options"

What would it take for you to join CS?

- Interesting
- Easy
- Fun
- Time
- Teaching approaches
- Incentives
- Information on what CS is
- IDK



"Maybe being more interested in ... things about the class"

"I don't even know what it is and I'm not interested"



"Maybe making the process and steps easier to understand "





"Make it seem easy and fun"

"For it to be fun and interesting"

"I would take it if it were more fun"



"Maybe have a free period class"

"I want to finish my A-G requirements first and then I'll see my other options"

Teaching Approaches"courses about how to edit a picture, videos, etc."

"to be able to create a game in ether groups or alone"

"to be able to create a game in ether groups or alone"



Information on what CS is

"I would take opinions of teachers and classmates."

"More background knowledge on the topic."

"To know more about what it is and how it helps me."



"idk tbh"



From our data we recommend

- Include APCS A in the math category of the course request form we use to plan our schedule (time)
- Include APCS Principles and CS Discoveries in the science category (time)
- Expose to CS earlier (lack of knowledge/interest)
 - Freshman year experiences could explain what CS is
 - courses
 - orientation activities
 - Have teacher go around and explain what CS is -- but the teacher needs to be given time

From our data we recommend

- Encourage teachers and counselors to know about and recommend CS classes
 - Provide ways for teachers to learn more about CS
 - Advertise CS classes more / recruitment fairs
 - Papers to pass out in class, what it is, benefits, who to go to learn more or schedule it
 - Incentivize teachers to do the CS Ed week activities Mr. Pearson recommends
- Show group work in CS classes to show it's social/collaborative
 - Share photos or videos of CS Students working
 - Invite other Students to collaboratively create a CS product (HOC or CS Demonstration)

Castle Park SCR Team

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