



**C E N T E R F O R A D V A N C E D R E S E A R C H
A N D T E C H N O L O G Y**

A joint meeting of the Board of Directors of the Clovis Unified School District; Fresno Unified School District; and the Center for Advanced Research and Technology (CART) was held on Tuesday, March 10, 2009 at 4:00 p.m. in the Theater and Room N103 located at 2555 Clovis Avenue in Clovis, California.

Chairman Fortune called the meeting to order at 4:00 p.m.

CALL TO ORDER

Susan Fisher, Chief Operating Officer, welcomed the board members and introduced the student panel members. Mrs. Fisher explained the format of the meeting which would include a question and answer period following the student presentations; a brief break with refreshments; and reconvening in the Law Lab, Room N103 for the balance of the meeting.

WELCOME

Jasmine Washington, Bioengineering Lab/Sunnyside High School; Jasay House, Law Lab/Sunnyside High School; Lauren Cortez, Network Management/Clovis West High School; Herlinda Jiminez, Biomedicine Lab/Fresno High School; Augie Lopez, Multimedia Lab/Bullard High School; and former CART students Anthony Ramirez; Matt Furyen; and Diana Arsala were present. The students shared their CART experience and provided Board members an opportunity to ask questions.

STUDENT PANEL

At 3:45 p.m. the Board recessed and refreshments were served.

RECESS

At 4:00 p.m. the Board reconvened in the Law Lab, Room N103.

RECONVENE

CART BOARD

ROLL CALL

Larry Fortune, Chairman
Richard Lake, Vice-Chairman
Michelle Asadoorian, Member
Terry Bradley, Ed.D., Member
Cathy Frost, Member
Elizabeth "Betsy" Sandoval, Member

Absent:

Michael Hanson – John Marinovich, Chief Academic Officer, Fresno Unified School District, was present on behalf of Mr. Hanson.

CUSD BOARD

Sandra Bengel, President
Ginny Hovsepian, Vice-President
Christopher Casado
Brian Heryford
Betsy Sandoval
F. Scott Troescher
Jim Van Volkinburg, D.D.S., Clerk – *Arrival 4:45 p.m.*

Absent:

None

FUSD BOARD

Valerie Davis, Chairman
 Michelle Arax Asadoorian, Clerk
 Cal Johnson
 Carol Mills
 Larry A. Moore
 Janet Ryan
 Tony Vang, Ed.D.

Absent:

None

Susan Fisher provided a “*State of the CART*” report.

**ROLL CALL,
CONTINUED**

**STATE OF THE
CART REPORT**

History

- Opened in August 2000
- Small learning community
- Target student population
 - ▶ middle quartiles
 - ▶ under achievers
 - ▶ students who have not been successful in the traditional model

How CART is different from a comprehensive high school

- Integrated
- Project-based
- Career Focus
- Community involvement
- Technology
- Personalized environment

Goals

- Increased attendance
- Increase academic achievement
- More students enrolled in higher level science
- All students graduate from high school
- Increase numbers of students who matriculate to higher education

Attendance

- Students at home high school vs. students at CART
 - ▶ Fiscal years 2004-2005
 - 2005-2006
 - 2006-2007
- Combined Results + 2.16%

Academic Achievement

- CART students who a greater percentage of improvement from not proficient to proficient than comprehensive high school students, especially in the special education and EI students
- CART students show an increase in grade point average

Enrolled in Higher Level Science

- 55% CART students enrolled in higher level science
 - ▶ Chemistry
 - ▶ Physics
 - ▶ Anatomy/physiology
 - ▶ Zoology
 - ▶ Biochemistry
 - ▶ Neuroscience [2009-2010]

1 Matriculate to Post Secondary Training/Education

- Last three years 96% of CART seniors go on to post secondary options
- Last two years 100% of CART applicants accepted at CSU Fresno

**STATE OF THE
CART REPORT
CONTINUED**

3 Small Learning Community

- Personalization makes the difference
- Block schedule
- Team of teachers
- Ability to customize projects, pull out small groups
- After school and evening tutoring available
- Mentors
- Parental involvement

8 Measures of Success

- Microsoft School of Excellence
- Golden Bell Award from California School Boards Association for Innovative Curriculum
- Featured on Japanese television special in January 2007
- Mentioned by Dr. Alvin Toffler in his new book, Revolutionary Wealth
- Continue to welcome educators/visitors from around the globe
- Approximately 2000 people attended the January 2009 CART Showcase

13 CART Recognized in State

- Increased interest in the CART program
 - ▶ UCLA Study – “one of ten exemplary programs in California”
 - ▶ Careers Project/California Research Bureau
 - ✓ Policy forum requested by California legislators
 - ✓ CART one of seven schools in California selected for an in depth study – CART students and staff panel members for report to legislators

17 CART Develops Training

- Workshop in April 2008
- Provided training/support for five Clovis Unified School District Career Technical Education [CTE] teams in 2008-09
- Requests for additional workshops this spring
- Requests for on-site training

21 Visitors

- | | |
|---------------------------|---|
| • Connect Ed | • West Ed |
| • Monache High School | • Catoosa County School District, Georgia |
| • Montebellow USD | • Chawanakee USD |
| • Education Trust | • North Pointe Leadership Academy |
| • Teachers from Sri Lanka | • Halifax County School District |
| • Natrona SD, Caspeter WY | • CSU Fresno Teacher Educators |
| • Sacramento USD | • CSU San Diego Teacher Educators |
| • Merced USD | |

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**STATE OF THE
CART REPORT
CONTINUED**

Rigor College Credit

- All students at CART enrolled in College Prep classes
- Eight classes Unitrack credit wit CSU Fresno
- Three classes 2 + 2 articulation with State Center Community College
- One Advanced Placement class

Relevance Career Focus Areas

- AP Computer Science
- Architectural Design
- Biomedical Engineering
- Biomedicine
- Data Base Design
- Digital Video Production
- Economics and Finance
- Environmental Science
- Forensic Research
- Graphics and Animation
- Interactive Game Design
- Law and Policy
- Marketing and Advertising
- Network Management
- Psychology and Human Behavior
- Robotics and Electronics
- Engineering & Product Development

Enrollment

- 2008-09
 - ▶ Opened with 1,408 students
 - ▶ Current

Facilities

- Awarded Three Career Technical Education [CTE] grants in 2008
 - ▶ Bioengineering addition
 - ▶ Biomedicine lab remodel
 - ▶ Game Design classroom addition
- Theater Technology Upgrade
 - ▶ Summer 2009

Summer 2009

- Kids Academy
- Prepare “How to Integrate Rigorous Academics with Careers” Tool Kit for Irvine Foundation

Staff Honors

- Keri Wagnon named a finalist for the Educator of the Year Award
- Susan fisher panelist for “Nature of Teaching and Learning in the 21st Century in Washington, DC
- Laurie Hayes and Rylie Hilscher invited to present “Integrating English with Science” at three National Science Teacher Association Conference
- Article by Beth Wielicki published in *Cable in the Classroom* magazine
- Laurie Hayes, Josh Olson, Rylie Hilscher, Brett Rosander and Abe Poduska presented at the Educating for Careers Conference in Anaheim
- Susan Fisher received Dr. Harold Haak Award for Outstanding Business Partnership Educator of the Year for Fresno County
- Susan Fisher and Jill Rossetti presented “How We Reinvented the High School Experience” at the ASCD Annual Conference in Orlando, Florida
- Susan Fisher awarded Exemplary Principal honors from the National Science Teachers Association

Funding

- CART Foundation
 - ▶ Circle of Promise [22008-09] direct mail appeal – proceeds to CART \$18,000
- No new lab sponsors
- Irvine Foundation Grant - \$125,000
- ConnectEd Demonstration Day - \$20,000
- 15% decrease in ROP funding for 2008-09
- 5% additional decrease in ROP funding for 2009-2010

Quote From a Parent

“The CART system worked! Thank you, thank you, you made a difference in a life and I am grateful.”

Lynette Goodwin
CART Parent

The Board held an open discussion on how CART has evolved and how to continue to evolve in order to meet the needs of the student population.

BOARD DISCUSSION

Tony Vang stated that he was very impressed with the student presentations, particularly the young lady that indicated she had been in the United States less than eight years; and whose English is better than mine after being in the United States 37 years.

Tony Vang asked what kinds of programs were available to serve special education and English language learner students.

Susan Fisher responded that about 5% of the students attending CART are in special education with approximately 4% English Language Development [ELD] students. Test scores show that the students at CART whose scores improve the most are the ELD and special education students. Mrs. Fisher shared that one student had told her, “At my home high school we know who the A, B, C, D and special education students are, but at CART we don’t know the grade point average or classification of the students.” Mrs. Fisher explained that by working in groups and learning each others’ strengths and weaknesses the ELD students and special education students have an equal opportunity to participate.

Tony Vang commented that he was glad that CART was open to all students. Further, Dr. Vang requested clarification on the local technology training and other training out of the area that Mrs. Fisher had spoken about.

Susan Fisher stated that CART students participate in some of both. CART has a very close relationship with DeVry University and they have a large campus in Fremont. Each year DeVry hosts a student tour day and provides two busses for CART students to travel to DeVry and tour their campus. Last year CART had a student who was qualified to attend DeVry but had no money and Bert Cantu, CART Guidance Counselor, contacted DeVry and they provided the student with a scholarship.

Tony Vang asked what the current ethnic demographics were at CART.

**BOARD DISCUSSION
CONTINUED**

1 John Forbes responded that CART students are 25% Hispanic; but noted
2 that if you blend the two school districts together CART very closely
3 matches the ethnicity throughout the school districts which is light on
4 Hispanic and heavy on Asian and Caucasian; and about the same percentage
5 of African American students. Further, looking at just the seniors and
6 juniors in both school districts, CART is approaching serving 10% of all
7 juniors and seniors attending in both school districts which is 1 in 10
8 students from the school districts, so CART is impacting quite a few
9 students.

6 Tony Vang noted that the current CART student population consists of 699
7 students from Clovis Unified School District and 530 students from Fresno
8 Unified School District. Tony Vang pointed out that at the present time
9 CART has 991 applications from Clovis Unified School District and 934
10 from Fresno Unified School District, and asked how the staff was going to
11 select Fresno Unified School District students to meet that quota.

10 Susan Fisher explained that a lottery process is in place to determine seats at
11 CART and this is done by school so that every school site has an equal
12 opportunity. Returning juniors get first choice and then for instance, if we
13 have thirty seats left we will take two students from Clovis High; two
14 students from Fresno High and so on, so that each school site gets an equal
15 number of seats.

14 Tony Vang acknowledged the process, but stated that the enrollment
15 numbers from Fresno Unified School District still remain lower than the
16 enrollment numbers from Clovis Unified School District.

16 Susan Fisher responded that CART loses more students from Fresno
17 Unified School District than from Clovis Unified School District. Susan
18 Fisher explained that more Fresno Unified School District students sign up
19 but do not attend than Clovis Unified School District students. Fresno
20 Unified School District has a more transient population. This has been very
21 evident this year with the economic crisis and the number of foreclosures.

19 Janet Ryan asked what the average grade point average was of students
20 entering CART.

21 John Forbes responded that he had done a comparison of the average grade
22 point average of students entering CART with the grade point average of a
23 typical sophomore and those entering CART typically are one grade point
24 average higher.

23 Janet Ryan explained that what she was getting at was CART is taking a lot
24 of students who have needs; but wondered how that meshed with the
25 students who have always had an "A" average but may want to attend
26 CART.

25 Brian Heryford stated that he thought most of the A average students
26 remained at their home high schools in order to enroll in Advanced
27 Placement classes; and further stated that he was pleased that many of the
28 students attending CART are median and at-risk students.

28 Janet Ryan stated that it is unfortunate that the districts don't have this kind
of technology for students who are already great A students and that the
technology is being concentrated on students of need.

**BOARD DISCUSSION
CONTINUED**

1 Janet Ryan inquired about the Irvine Grant and replicating that; and asked if
2 the goal would be to replicate the CART model in small numbers in all the
high schools.

3 Susan Fisher responded stating that the strategies for getting students
4 engaged in their education have worked at CART. One example is the
5 integration of subjects so that students write one research paper and get
credit for their science and their English class.

6 Janet Ryan clarified that what CART is doing then is bringing strategies and
7 methods of integration out to the schools in the districts, not necessarily
improving the technology courses at all of the high schools.

8 Terry Bradley stated that it depends on what the emphasis is at the
9 particular school site, for instance there are currently five high schools that
10 CART is helping with their Career Technical Education [CTE] grant
11 programs. It is hard work for instructors to change the manner in which
12 they provide instruction. Susan Fisher will tell you from her experience
13 when CART began 8 or 9 years ago we were not at the level that we are
14 today even though we had 15 teachers working fulltime for a year to
15 develop curriculum. This venture was a tremendous commitment by both
16 school boards to allow teachers to do nothing but develop curriculum. The
first two years we struggled not because the curriculum wasn't good, but
because teachers were struggling to change the way they deliver the
curriculum. Obtaining the CTE funding was easy; the difficult part is
training the teachers to teach in a different way. Dr. Bradley further stated
that he hoped that as we move the focus that we have at CART out to the
comprehensive high schools we do not duplicate what we do at CART
because if the programs overlap we are just wasting resources that are very
limited.

17 Cathy Frost asked if the preparation time for CART teachers was a lot
18 different than for teachers at a comprehensive high school.

19 Susan Fisher responded that CART teachers have a two hour time frame
20 from 10:30 a.m. – 12:30 p.m. each day for collaboration. Teachers at the
21 comprehensive high schools typically have one hour of preparation time, so
22 CART teachers are given more preparation time, but it is not nearly enough
23 and that is why you still see the teachers here during the evenings and
weekends. Susan Fisher further stated that it takes an incredible amount of
time to coordinate the lessons with two other people. The CART teachers
also do parent conferences and attend staff meetings during that break time.
The CART teachers appreciate having that two hours, but you cannot do all
the preparation that is required in two hours.

24 Scott Troeschler asked about the English component, for instance if CART
25 is enrolling a C student, as an average, are the instructors really getting a
student proficient in English – how is that one component attacked, is it
emphasized if a student is having a problem, do they get special help?

26 Susan Fisher responded stating that first of all English is not just the
27 responsibility of the English teacher it is the responsibility of all the
28 teachers on the team in that particular lab. All teachers work on English so
when everybody works on English they look for ways to build that part of
the instruction into doing something that students enjoy. For instance, if a
student wants to make a movie the instructor integrates the movie script as

**BOARD DISCUSSION
CONTINUED**

1 their English lesson – finding what students like to do and integrating the
2 English lesson into it improves language arts skills.

3 Susan Fisher further explained that CART classes emphasize English across
4 the Board. They choose novels that have something to do with the subject
5 area that the students like, i.e. the Forensics Lab’s first novel assignment is
6 Sherlock Holmes. Susan Fisher shared that she had a group of students who
7 had come to meet with her to lodge a complaint that they were not doing an
8 English research paper in their lab. She asked them about the research
9 paper they had just spent four weeks working on and their response was,
10 “*But that was for our science class,*” because the science teacher had given
11 the assignment.

12 The other advantage at CART is that the students have three teachers and if
13 students need help passing the exit exam for instance then one teacher can
14 take that small group out and work with them – the team teaching model
15 really makes what we do at CART possible.

16 Larry Fortune stated that in the four years that he has served on the Board,
17 CART has finally reached the enrollment capacity and that it was his firm
18 belief that it is in large part to Susan Fisher’s determination, enthusiasm and
19 outstanding leadership. Larry announced that Susan Fisher had just
20 received the Dr. Harold Haak Award for Educator of the Year and that next
21 week she would be traveling to New Orleans to receive the National
22 Science Teachers Association [NSTA] Exemplary Principal Award.

23 Carol Mills stated that she really enjoyed having the graduates from CART
24 share during the earlier part of the meeting. The positive experiences of the
25 graduates of CART spoke more about what CART has provided them than
26 even the current students who have not yet seen how CART has helped
27 them in college or in other real-world experiences. Carol Mills further
28 stated that she felt the CART graduates would make great recruiters and
could also encourage students to stay at CART if they are struggling and
thinking about quitting.

Susan Fisher shared that Matt Furyen, one of the graduates that presented, is
starting his Master’s Program at the University of Chicago. Matt is
currently employed with emergency medical services as the head trainer.
One of the CART teachers attended the emergency medical services
training and Matt was the trainer.

Brian Heryford thanked the CART Joint Powers Authority Board for their
support without which CART could not have evolved into what it is today.
Brian Herford also acknowledged and thanked the CART staff for all the
hard work that they do, particularly for students who do not do well in the
traditional high school setting.

Brian Heryford recalled a past student who entered CART with a GPA of
about 1.9 and after her second week at CART was at Valley Children’s
Hospital observing a pediatric surgery and she knew then that was what she
wanted to be and worked very hard to improve her GPA because she had a
clear goal.

1 Larry Fortune stated, on behalf of the JPA Board, that the board members
2 consider it a great honor to be able to support the CART program by
serving on the Board.

**BOARD DISCUSSION
CONTINUED**

3 Susan Fisher acknowledged and thanked the CART Governing Board; the
4 Clovis Unified Governing Board; and the Fresno Unified Governing Board
5 for persevering through the rocky start of CART when classes were not full
6 and the program was in its infancy; and allowing the staff time to get the
7 CART program in the place where it needed to be. Susan Fisher further
8 noted that it would have been easy for the Board members to say we have
all this money in this program and it is not serving enough students; so
thank you for sticking behind us and allowing the time and opportunity to
make it happen.

8 Larry Fortune stated that it took some great visionaries who had faith that
9 the program would work to persevere and see it through.

10 Sandy Bengel acknowledged Dr. Terry Bradley stating that he was one of
11 the visionaries of the CART program and he will be retiring this year and
12 CART as well as the entire school district will surely miss him. Sandy
13 Bengel further stated that she hoped that the CART Board would turn to
Terry because he is responsible for a lot of the CART vision.

13 Terry Bradley recalled the first lunch with Ron Bennett of Fresno Unified
14 Fiscal Services; Fresno Unified Superintendent Chuck McCully and Clovis
15 Unified Superintendent Dr. Walt Buster first discussing the CART concept.
16 Terry shared that following that lunch Ron Bennett had called him and said,
17 “*Can you really believe what they are proposing?*” Terry Bradley stated
18 that, honestly, it is not because of Dr. Walt Buster or Chuck McCully; Ron
19 Bennett; or myself, it is because of Susan Fisher and her staff, what they do
20 is hard work, you cannot be successful in a career technology program if
21 you look at teaching as a job, it has to be a calling – just observe the number
of CART teachers that are still here on any given day; it isn’t a “duty day”
for them, it is whatever it takes to get the job done.

21 Sandy Bengel again acknowledged Dr. Bradley’s contribution to the CART
22 program stating that “*we wouldn’t be here sitting in this facility if it wasn’t
23 for Dr. Bradley’s money mind*”.

22 Members of the public were given an opportunity to address the Board.
23 There was no one present to address the Board.

**PUBLIC
PRESENTATIONS**

23 The meeting adjourned at 5:34 p.m.

ADJOURNMENT

24 Respectfully Submitted,

25
26 _____
Larry Fortune, Chairman
27 CART JPA Board of Directors
CART:3.10.09.ac

28 MSCU = Motion (*Board Member making the motion listed*), Second (*Board Member making the second listed*), Carried Unanimously
MSC = Motion, Second, Carried (*Board members voting NOT listed*.)
MSF = Motion, Second, Failed (*Board members voting NOT listed*.)
APPROVED by FUSD Board of Education – July 29, 2009