

## Oregon Game Programming Project Challenge

2008 Winning Team PHRED from Philomath



## Session Leader Contacts

- Stevie Viaene
  - [stevie.viaene@gmail.com](mailto:stevie.viaene@gmail.com)
- Tom Thompson
  - [thomsri@comcast.net](mailto:thomsri@comcast.net)
- Sherry Yang
  - [Sherry.Yang@oit.edu](mailto:Sherry.Yang@oit.edu)



## Today's Goals

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- Focus on being a coach or mentor
- I hope you leave:
  - Feeling more comfortable about your role
  - Having some more tools in your bag of tricks
  - Understanding better what it takes to solve a challenge.
  - Having gotten your questions answered
- Have some fun!!



## Agenda

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- Review our Mission
- Forming your team
- Registering your team
- Equipping your team
- Managing your team



## Our Mission



- **OGPC not just about programming a game and competing in tournaments**
  - **Teach Specific Technical skills**
    - Program Planning, Design, Coding, Testing, Creating Sprites, Sounds, Documentation
  - **Teach General life skills**
    - Teamwork, Time Management, Cooperation, Communication, Responsibility
  - **Show that team projects can be fun**
  - **The team members do the work**
  - **Expose kids to the possibility of technical careers**



## Questions You May Have

- **Exactly what is the role of the coach?**
- **How much time does it take?**
- **What resources do you need?**
- **What do the team members get out of it?**
- **What knowledge and skills do you need?**
- **Oh, yeah, and what's the score of the Duck's or Beav's game today?**



## OGPC 2.0 Season Overview

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- Details of theme and project challenge announced.
- Registration Opens: Feb. xx, 2009
  - Web address: <http://techstart.org/ogpc.html>
  - Registration fee: \$50
- Registration Closes: Mar. xx, 2009
- Game Concept Document: Apr. xx, 2009
- Tournament: May 16, 2009



## Forming Your Team

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## Where Teams Come From

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- School Based
  - In class: Perhaps 45 minutes a day
  - After school: Perhaps 1.5 hours; 2 to 4 times a week
  - Special block: Several hours once a week
- Club Based
  - Probably after school or evening
- Independent team
  - After school, evenings, or weekends
- We encourage you to find and include youngsters that normally would not have this exposure



## Where to Meet

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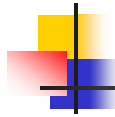
- Large enough space to handle the number of youngsters on the team
- Access to one or more computers
  - Some students can code game while others create sprites or sounds, test previous modules



## Team size

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- High initial interest may fade
- Sub-teams of 2-3 can work in parallel
  - Research the theme
  - Learn programming techniques
  - Develop graphics
  - Prototype a game
  - Work on the presentation
- Eventually team must stabilize at 3 to 7 team members
- 4 students may be the “ideal”



## You Need Adults, Too!

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- Coach – The person in charge
  - Organizes the team
  - Does not need to be a techie
- Mentor – The technical guru
  - Provides technical advice
  - Provides the technical basics
- One person can play both roles



## Coach – The Person in Charge

- Single point of contact for team
- Understands the OGPC program
- Management expertise more important than technical expertise
  - Recruits the team
  - Registers the team
  - Arranges for equipment
  - Schedules meetings
  - Sets the philosophy and instills team spirit
  - Is a good role model



## Mentor – The Technical Guru

- Technical Advisor to assist the coach
- Teaches game programming design
- Helps set achievable goals
- Encourages structured problem solving
  - Follow typical engineering project models
  - Experiment with one variable at a time



## Mentor could be...

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- You
- Another colleague
- A parent
- A high school or college student
- An occasional visitor



## General Advice to All Adults

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- This is the students' project, not yours
- Be a good role model
- Keep a positive attitude
- Encourage teamwork and insist on mutual respect
- Don't over emphasize "winning" – demonstrating a solution at a tournament is success
- Help kids keep project in scope of the short season – they will have more ideas than time!
- Have fun





## Team Ethics

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- We are a team.
- We do the work to find the solutions with guidance from our coaches and mentors.
- We honor the spirit of friendly competition.
- What we discover is more important than what we win.
- We share our experiences with others.
- We display gracious professionalism in everything we do.
- We have fun.



## Registering Your Team

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## Team Registration

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- Opens: February xx, 2009
- Closes: March xx, 2009
- Web address:  
<http://techstart.org/ogpc.html>
- \$50 registration fee
- First-Come-First-Served, so REGISTER EARLY!!



## Equipping Your Team

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## Minimum Resources to Start

- A copy of Game Maker – Lite Edition or Pro Edition
- A computer with Windows XP or Vista
- A place to meet and practice
  - Classroom
  - Family room
  - Garage
  - Community Room



## Software Warnings

- School security may not allow GameMaker to be installed or run
  - Consider using personal laptops
  - GameMaker runs nicely from a Flash drive
  - Provide a way to share work
    - Flash drives, email
  - Teach kids to save versions as they go



## Example Team Budget

- Registration Fee: \$50
- Game Maker: \$0 (Lite) or \$20 (Pro)
- Transportation:
- Total:
- Extras: team shirts, snacks, etc



## Possible Sources of team funding

Having some portion of costs picked up by team members gives a sense of commitment

Team Member Dues

Fundraising Activities

Team Sponsors

TechStart Scholarship

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## Managing Your Team

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## Meeting Organization

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- How often and how long to meet
  - Most teams meet 2-3 times per week
  - After school, evenings, weekends as team desires
  - Some add extra time as get closer to end
    - > 1 hr (set up and take down)
    - < 3 hrs (attention span)
- At least 2 adults present during meetings – can use parents who take turns
- Set ground rules -- E.g. don't turn kids loose to walk home by themselves after dark
- Refreshments / snacks



## Team Kick-off Meeting

- Consider inviting parents
- Set expectations with both
  - Goals
  - Season
  - Milestones
- Explain the real situation to the parents



## Parent Involvement

- Explain program/philosophy
- Explain team rules
- Discuss participation commitment for team members
- Review costs and funding sources
- Communicate about tournament
- Solicit help – Roles for parents
  - Car Pooling
  - Snacks
  - Coordinate Fund Raising
  - Publicity
  - End of Season Party



## \*\* Getting Started with the Team Members

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- Set Team Goals
- Decide responsibilities
  - Can rotate, especially near beginning
  - Usually will want to be fixed as near tournament
  - Need backup roles due to absences
- Set milestones – use project management analogy
  - Set dates for each phase of project to keep on track
  - Include design, build, test, REWORK
- Encourage participation in a team environment



## \*\* Learning Opportunities

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- Encourage risk taking
  - “If you never fail, you never tried anything new.”  
Albert Einstein
  - Key is to manage the risk
- Encourage experimentation
- Expect failure – focus on what is learned as a result
- Problem solving takes time – Edison’s experience with light bulb filament



## \*\*Facilitate Structured Problem Solving

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- Defining problem
- Brainstorming
- Evaluating alternatives
- Choosing alternative
- Implementing
- Evaluating & testing



## Hard vs.. Soft Skills

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|--|---|
| <ul style="list-style-type: none"><li>■ <b>Hard Skills</b><ul style="list-style-type: none"><li>■ Mechanical Design</li><li>■ Programming</li><li>■ Software Design</li><li>■ Analysis</li><li>■ Problem Solving</li><li>■ Experimentation</li><li>■ Documentation</li><li>■ Computer Graphics</li><li>■ Testing</li><li>■ Human Interface</li></ul></li></ul> | <ul style="list-style-type: none"><li>■ <b>Soft Skills</b><ul style="list-style-type: none"><li>■ Timeliness</li><li>■ Teamwork</li><li>■ Tact and Compromise</li><li>■ Confidence</li><li>■ Courtesy</li><li>■ Perseverance</li><li>■ Planning</li><li>■ Positive Attitude</li></ul></li></ul> |
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Turn these youths into engineers





## Build a Foundation

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- Introduce techniques and concepts
  - Build or bring demos
  - Discuss advantages and disadvantages
  - Let kids figure out how to apply concept to Challenge
- If meetings start before Challenge is announced, can use mini-challenges to introduce concepts
- One approach: use 5-10 minutes at start of each meeting to introduce concepts



## Skill Builders

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- Templates
- Simple Games to focus on a Concept
  - Examples found in free on-line tutorials
- Learning Exercises
  - Motion Control
  - Collisions
  - Game Flow
  - Levels of Difficulty



## Sample Concepts

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- Use of a theme
- Game Flow
- Consistency and Variation
- Scoring System
- Use of Animations
- Graphics
- Testing
- Documentation



## Divide and conquer- Examples

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- Game Designer
- Graphics & sounds
- Testing
- Marketing  
(Presentations)
- Rooms
- Levels
- Scoring
- Research

## With All the Focus on the creating a game...

Don't Forget the Judging



## Technical Judging Interview

Programming

Game Research & Development

Game Experience

- Panel of “experts” interviews teams
- Prepare the team by:
  - Encourage ALL members to participate in presentation responsibilities.
  - Practice speaking in front of a group
  - Learn how to listen to “judges” questions and respond or pass them off to a team-mate.
  - Focus the presentation on how the game meets the requirements of the challenge
  - Personalize the presentation

## Team Performance Judging Interview

### Presentation & Teamwork

- Another good learning opportunity
- Engineering requires Research skills and presentation skills
  - (remember the marketing kid? ☺)

“The  
Bizness”

2<sup>nd</sup> Place  
Teamwork  
Award



## Many Awards your Team can win!!

Champion  
Game Experience  
Game R&D  
Presentation  
Programming  
Teamwork





## Our Mailing Lists

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- ogpc-interest
  - All volunteers – you can opt out
  - One way from OGPC to our volunteers
  - We add you when you express interest
- ogpc-coaches-2
  - Coaches and mentors are added when you register your team
  - Communication from OGPC to registered coaches – very important channel



## Next Steps

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- Get on the OGPC interest list
- Register your team during Winter 2009
- Start recruiting your team
- GameMaker workshop is coming for coaches to learn details of using GameMaker software
  - Date and venue are TBA
- Download the free version from <http://www.yoyogames.com>
  - Start playing with tutorials from that site

## Contact Us – at the TechStart Foundation

Web site: <http://www.techstart.org/ogpc>  
Email: [ogpc@techstart.org](mailto:ogpc@techstart.org)  
Phone: 503-802-5211

Students  
Evaluating  
Games in  
Arcade Room



## Everybody leaves a winner!!

