



DESIGN EXCHANGE



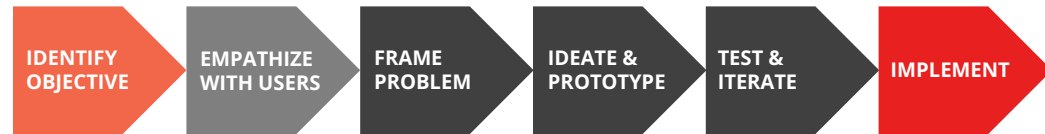
# LEARNING BY DESIGN

## Who Should Attend?

This programme was developed for participants from the general education sector and their respective stakeholders to learn and apply Design Thinking in their work.

## Our Methodology

Our methodologies are shaped by over 2 decades of design practice serving customers across diverse industries - from lifestyle to life science. Hence we are experienced in applying Design Thinking in diverse real-world contexts - going beyond classroom theories. These proven methods are effective in driving innovations via a hands-on and human-centric approach to identify critical issues and drive effective changes.



## Who are we?

Design Exchange is a cross-disciplinary design agency with over 20 international design awards. We are design practitioners & design educators who use Design Thinking in our own day-to-day work in driving innovation in the domains of UX, UI & Industrial Design. We teach what we do, so our methodologies are practical and easily applicable.

## Our Trainers

Timothy Hoo is our principal and teaches Design Thinking at the College of Design & Environment in NUS.  
timhoo@designexchange.com

Song Kee Hong is our design director and teaches Human-Centred Design at the Division of Industrial Design in NUS.  
songkh@designexchange.com

## Our Workshops

In our training programme, participants will learn to develop and apply Design Thinking methods by using actual organisational challenge as a learning scaffold to address and validate their learning. Witnessing the power of Design Thinking in addressing their real challenges is the best way to generate buy-ins from participants.

## Case Study

We were engaged by DesignSingapore Council to run a pilot Design Thinking program for Jurong Pioneer Junior College. Students were tasked to create innovative solutions using recycled aircraft parts to participate in SUTD x SIA Upcycling Competition and using this as a platform, validate their ability to apply what they have learnt in our workshop.



Two out of four teams managed to reach the finals with one going on to win the 2<sup>nd</sup> prize using Design Thinking to design their product.

**“It really tests us on our thinking and the many different ways that one can transform something.”**

- Student Feedback



# LEARNING BY DESIGN PROGRAMME SHOWCASE



## PRE-U SEMINAR FACILITATOR WORKSHOP

Educator professional development in Design Thinking + Futures Thinking in preparation as facilitators



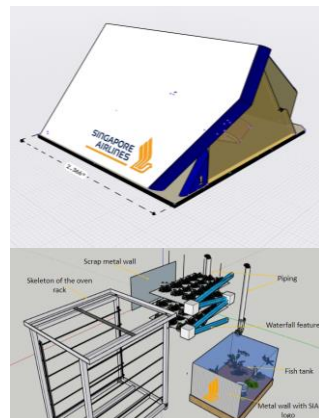
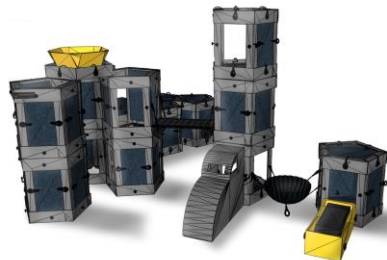
## SEEDS OF GROWTH | SWISS COTTAGE SECONDARY SCHOOL

"Embed design thinking as a methodology to enhance the learning habits, the outward mindset & inquisitive spirit in Swiss D&T and ALP students"



## SUTD x SIA UPCYCLING COMPETITION

Final design entries for competition



## BUDDING S.T.E.M. | WESTWOOD PRIMARY SCHOOL

"Create a scalable and permanent STEM learning framework undergirded by a human-centered, multi-perspective Design Thinking approach"



# LEARNING BY DESIGN

## SUMMARY OF PACKAGES



NAME	BASIC LEVEL	ADVANCED LEVEL
<b>STUDENTS PROGRAMME</b>	<b>DESIGN THINKING ONBOARDING</b> 4 x 2 HRS TRAINING SESSIONS (8 HRS TOTAL) UP TO 50 STUDENTS / EDUCATORS / MIX PACKAGE PRICE : \$ 19,970	<b>DESIGN THINKING WITH PROBLEM STATEMENT</b> 6 x 2.5 HRS TRAINING SESSIONS (15 HRS TOTAL) UP TO 50 STUDENTS / EDUCATORS / MIX PACKAGE PRICE : \$35,690
<b>EDUCATORS PROGRAMME</b>	<b>PROFESSIONAL DEVELOPMENT FOR EDUCATORS</b> 2 x 4 HRS TRAINING SESSIONS (8 HRS TOTAL) UP TO 50 EDUCATORS PACKAGE PRICE : \$ 19,970	--
<b>SCHOOL IMPROVEMENT</b>	--	<b>CO-CREATION FOR SCHOOL IMPROVEMENT</b> 8 x 2.5 HRS TRAINING SESSIONS (20 HRS TOTAL) UP TO 50 STUDENTS / EDUCATORS / MIX PACKAGE PRICE : \$ 42,710

*No proration allowed. All package prices indicated exclude taxes.  
Additional 9% GST charges will be included in billing.*

## DESIGN THINKING ONBOARDING (8 hours)

### Programme Description:

This is a hands-on immersion workshop for participants to familiarise with the human-centered, design thinking methodology exemplified by real world design projects.

### What you will learn:

- Appreciate the Design Thinking process & its application to daily life.
- Experience the mindset shift required centered on critical and divergent thinking when approaching a problem issue.

### Target Audience:

Up to 50 Students / Educators / Mix

### School Level:

Primary, Secondary & Junior College

	Description of Services	Specifications	Remarks
1	Design Thinking Consultancy	Identification of School Needs & adaptation into programme	Programme consultation of 2 sessions max or 6 hours total with lead design consultant.
2	Production of Standard Programme Materials	Printing of Lesson materials / Worksheets / Posters / Charts / Certificates	Provision of standard content training handouts for 50 participants (Additional copies to be charged according to deviation from default)
3	Prototyping Materials	Provision of stationery and materials for low-fidelity prototype building	On-site standard prototyping materials provision for 50 participants (Additional materials to be charged according to deviation from default)
4	Manpower for Facilitation	Includes: • Main facilitators for programme • Main presenter for talks	8 hours of workshops facilitation conducted with up to 2 x Speakers/ Facilitators conducted in single cohort of 50 participants
5	Project Reporting	Includes: • Pre/post Surveys • Interim & Final Reports	Survey sample size to be limited to 50 participants (Students / Teachers) from partnering school.
6	Audit report	External audit of actual expenditure by practitioner	Mandatory for all programmes

Package Price: **\$19,970**

# LEARNING BY DESIGN | BASIC LEVEL

## DESIGN THINKING ONBOARDING (4 x 2 HRS SESSIONS; 8 HRS TOTAL)



	Description of Services	Specifications	Unit Price (S\$)	Actual Price (S\$)	Remarks
1	Project Reporting	Pre/post Surveys and Interim & Final Reports	1,500 Per project	1,500	Survey sample size to be limited to 50 participants (Students / Teachers) from partnering school.
2	Design Thinking (DT) Consultancy	Identification of School Needs and adaptation into programme	2,600 Per unit of consultation (3 hrs)	5,200 (\$2,600 x 2 units)	Programme consultation of 2 sessions max or 6 hours total with lead design consultant.
7	Production of Standard Programme Materials	Includes: • Printing of lesson materials such as Worksheets / Posters / Charts / Certificates	2,850 Per set	2850	Provision of standard content training handouts for 50 participants (Additional copies to be charged according to deviation from default)
8	Internal Manpower Cost for Facilitation – Senior Speaker/ Facilitator	Includes: • Main facilitator for programmes • Main presenter for talks	528 Per man-hour	7,920 (528 x 15 man-hours)	8 hours of workshops facilitation conducted with up to 2 x Speakers/Facilitators  Per man-hour cost applies to all workshop packages and will be costed according manpower of up to 2 x Speakers/Facilitators per session.
13	Audit report	External audit of actual expenditure by practitioner	2,000 Per report	2,000	Cost of audit is charged according to the prevailing market rate stipulated by practitioners and subjected to cost variation according to audit procedures required per project.
14	Prototyping Materials	Provision of stationery and materials for low-fidelity prototype building	500 Per set	500	On-site standard prototyping materials provision for 50 participants (Additional materials to be charged according to deviation from default)
			<b>Package Price</b>	<b>\$19,970</b>	

## DESIGN THINKING WITH PROBLEM STATEMENT (15 hours)

### Programme Description:

The creation process to solve real-world issues are complex, dynamic by nature & involves multiple stakeholders. This DT application programme equips participants with the tools to unpack a problem's underlying issues, scope the objective & drive effective outcomes.

### What you will learn:

- Gain confidence to navigate the problem landscape via the use of proprietary tools.
- Identify actual issues of the problem in a multi-perspective way to scope & formulate solutions that will create impact.

### Target Audience:

Up to 50 Students / Educators / Mix

### School Level:

Secondary & Junior College

	Description of Services	Specifications	Remarks
1	Design Thinking Consultancy	Identification of School Needs & adaptation into programme	Programme consultation of 5 sessions max or 15 hours total with lead design consultant.
2	Production of Standard Programme Materials	Printing of Lesson materials / Worksheets / Posters / Charts / Certificates	Provision of standard content training handouts for 50 participants (Additional copies to be charged according to deviation from default)
3	Prototyping Materials	Provision of stationery and materials for low-fidelity prototype building	On-site standard prototyping materials provision for 50 participants (Additional materials to be charged according to deviation from default)
4	Manpower for Facilitation	Includes: • Main facilitator for programmes • Main presenter for talks	15 hours of workshop facilitation conducted with up to 2 x Speakers/ Facilitators conducted in single cohort of 50 participants
5	Project Reporting	Includes: • Pre/post Surveys • Interim & Final Reports	Survey sample size to be limited to 50 participants (Students / Teachers) from partnering school.
6	Audit report	External audit of actual expenditure by practitioner	Mandatory for all programmes

Package Price: **\$35,690**



# LEARNING BY DESIGN | ADVANCED LEVEL

## DESIGN THINKING WITH PROBLEM STATEMENT (6 x 2.5 HRS SESSIONS; 15 HRS TOTAL)



	Description of Services	Specifications	Unit Price (\$)	Actual Price (\$)	Remarks
1	Project Reporting	Pre/post Surveys and Interim & Final Reports	1,500 Per project	1,500	Survey sample size to be limited to 50 participants (Students / Teachers) from partnering school.
2	Design Thinking (DT) Consultancy	Identification of School Needs and adaptation into programme.	2,600 Per unit of consultation (3 hrs)	13,000 (2,600 x 5 units)	Programme consultation of 5 sessions max or 15 hours total with lead design consultant.
7	Production of Standard Programme Materials	Includes: • Printing of lesson materials such as Worksheets / Posters / Charts / Certificates	2,850 Per set	\$2850	Provision of standard content training handouts for 50 participants (Additional copies to be charged according to deviation from default)
8	Internal Manpower Cost for Facilitation – Senior Speaker/ Facilitator	Includes: • Main facilitator for programmes • Main presenter for talks	528 Per man-hour	15,840 (528 x 30 man-hours)	15 hours of workshops facilitation conducted with up to 2 x Speakers/Facilitators  Per man-hour cost applies to all workshop packages and will be costed according manpower of up to 2 x Speakers/Facilitators per session.
13	Audit report	External audit of actual expenditure by practitioner	2,000 Per report	2,000	Cost of audit is charged according to the prevailing market rate stipulated by practitioners and subjected to cost variation according to audit procedures required per project.
14	Prototyping Materials	Provision of stationery and materials for low-fidelity prototype building	500 Per set	500	On-site standard prototyping materials provision for 50 participants (Additional materials to be charged according to deviation from default)
			<b>Package Price</b>	<b>\$35,690</b>	



## PROFESSIONAL DEVELOPMENT FOR EDUCATORS (8 hours)

### Programme Description:

This is a workshop targeted at existing educators to empower them with proprietary & time-tested Design Thinking tools focused on learning & integration of critical thinking into school curriculum and academic project development.

### What you will learn:

- Learn the tools to effectively facilitate and guide students in group and class level academic work / projects via a critical thinking approach.

### Target Audience:

Up to 50 Educators

### School Level:

Secondary & Junior College

	Description of Services	Specifications	Remarks
1	Design Thinking Consultancy	Identification of School Needs & adaptation into programme	Programme consultation of 2 sessions max or 6 hours total with lead design consultant.
2	Production of Standard Programme Materials	Printing of Lesson materials / Worksheets / Posters / Charts / Certificates	Provision of standard content training handouts for 50 participants (Additional copies to be charged according to deviation from default)
3	Prototyping Materials	Provision of stationery and materials for low-fidelity prototype building	On-site standard prototyping materials provision for 50 participants (Additional materials to be charged according to deviation from default)
4	Manpower for Facilitation	Includes: <ul style="list-style-type: none"> <li>Main facilitator for programmes</li> <li>Main presenter for talks</li> </ul>	8 hours of workshop facilitation conducted with up to 2 x Speakers/ Facilitators conducted in single cohort of 50 participants
5	Project Reporting	Includes: <ul style="list-style-type: none"> <li>Pre/post Surveys</li> <li>Interim &amp; Final Reports</li> </ul>	Survey sample size to be limited to 50 participants from partnering school
6	Audit report	External audit of actual expenditure by practitioner	Mandatory for all programmes

Package Price: **\$19,970**

# LEARNING BY DESIGN | BASIC LEVEL

## PROFESSIONAL DEVELOPMENT FOR EDUCATORS (2 x 4 HRS SESSIONS, 8 HRS TOTAL)



	Description of Services	Specifications	Unit Price (\$)	Actual Price (\$)	Remarks
1	Project Reporting	Pre/post Surveys and Interim & Final Reports	1,500 Per project	1,500	Survey sample size to be limited to 50 participants (Students / Teachers) from partnering school.
2	Design Thinking (DT) Consultancy	Identification of School Needs and adaptation into programme	2,600 Per unit of consultation (3 hrs)	5,200 (2,600 x 2 units)	Programme consultation of 2 sessions max or 6 hours total with lead design consultant.
7	Production of Standard Programme Materials	Includes: • Printing of lesson materials such as Worksheets / Posters / Charts / Certificates	2,850 Per set	2850	Provision of standard content training handouts for 50 participants (Additional copies to be charged according to deviation from default)
8	Internal Manpower Cost for Facilitation – Senior Speaker/ Facilitator	Includes: • Main facilitator for programmes • Main presenter for talks	528 Per man-hour	7,920 (528 x 15 man-hours)	8 hours of workshops facilitation conducted with up to 2 x Speakers/Facilitators  Per man-hour cost applies to all workshop packages and will be costed according manpower of up to 2 x Speakers/Facilitators per session.
13	Audit report	External audit of actual expenditure by practitioner	2,000 Per report	2,000	Cost of audit is charged according to the prevailing market rate stipulated by practitioners and subjected to cost variation according to audit procedures required per project.
14	Prototyping Materials	Provision of stationery and materials for low-fidelity prototype building	500 Per set	500	On-site standard prototyping materials provision for 50 participants (Additional materials to be charged according to deviation from default)
			<b>Package Price</b>	<b>\$19,970</b>	

## CO-CREATION FOR SCHOOL IMPROVEMENT (20 hours)

### Programme Description:

This is facilitated, school wide co-creation programme to address a common existing school issue; scaffolded to a common subject & guided using the collaborative process of Design Thinking to solve the problem.

### What you will learn:

- Navigate the multi-stakeholder environment using ethnography research tools to address critical issues.
- Uncover latent needs & insights to drive the design challenge and create relevant & implementable solutions.

### Target Audience:

Up to 50 Students / Educators / Mix

### School Level:

Primary, Secondary & Junior College

	Description of Services	Specifications	Remarks
1	Design Thinking Consultancy	Identification of School Needs & adaptation into programme	Programme consultation of 7 sessions max or 21 hours total with lead design consultant.
2	Production of Standard Programme Materials	Printing of Lesson materials / Worksheets / Posters / Charts / Certificates	Provision of standard content training handouts for 50 participants (Additional copies to be charged according to deviation from default)
3	Prototyping Materials	Provision of stationery and materials for low-fidelity prototype building	On-site standard prototyping materials provision for 50 participants (Additional materials to be charged according to deviation from default)
4	Manpower for Facilitation	Includes: • Main facilitator for programme • Main presenter for talks	20 hours of workshop facilitation conducted with up to 2 x Speakers/ Facilitators conducted in single cohort of 50 participants
5	Project Reporting	Includes: • Pre/post Surveys • Interim & Final Reports	Survey sample size to be limited to 50 participants (Students / Teachers) from partnering school.
6	Audit report	External audit of actual expenditure by practitioner	Mandatory for all programmes

Package Price: **\$42,710**

# LEARNING BY DESIGN | ADVANCED LEVEL

## CO-CREATION FOR SCHOOL IMPROVEMENT (8 x 2.5 HRS SESSIONS, 20 HRS TOTAL)



	Description of Services	Specifications	Unit Price (\$)	Actual Price (\$)	Remarks
1	Project Reporting	Pre/post Surveys and Interim & Final Reports	1,500 Per project	1,500	Survey sample size to be limited to 50 participants (Students / Teachers) from partnering school.
2	Design Thinking (DT) Consultancy	Identification of School Needs and adaptation into programme.	2,600 Per unit of consultation (3 hrs)	18,200 (2,600 x 7 units)	Programme consultation of 7 sessions max or 21 hours total with lead design consultant.
7	Production of Standard Programme Materials	Includes: • Printing of lesson materials such as Worksheets / Posters / Charts / Certificates	2,850 Per set	2850	Provision of standard content training handouts for 50 participants (Additional copies to be charged according to deviation from default)
8	Internal Manpower Cost for Facilitation – Senior Speaker/ Facilitator	Includes: • Main facilitator for programmes • Main presenter for talks	528 Per man-hour	17,160 (528 x 32.5 man-hours)	20 hours of workshops facilitation conducted with up to 2 x Speakers/Facilitators  Per man-hour cost applies to all workshop packages and will be costed according manpower of up to 2 x Speakers/Facilitators per session.
13	Audit report	External audit of actual expenditure by practitioner	2,000 Per report	2,000	Cost of audit is charged according to the prevailing market rate stipulated by practitioners and subjected to cost variation according to audit procedures required per project.
14	Prototyping Materials	Provision of stationery and materials for low-fidelity prototype building	500 Per set	1000 (500 x 2 units)	On-site standard prototyping materials provision for 50 participants (Additional materials to be charged according to deviation from default)
			<b>Package Price</b>	<b>\$42,710</b>	



# LEARNING BY DESIGN

## RATE CARD & CONTACT INFORMATION



	Description of Services	Specifications	Unit of Measure	Price (S\$)	Remarks
1	Project Reporting	Pre/post Surveys and Interim & Final Reports	Per project	1,500	Survey sample size to be limited to 50 participants (Students / Teachers) from partnering school.
2	Design Thinking (DT) Consultancy	Identification of School Needs and adaptation into programme	Per unit	2,600	Per unit covers 3 hours of face-to-face / online consultation with 1 x programme consultant.
3	School Process Review	Consultancy services to review school processes	Per report	NIL	NIL
4	School Programme Review	Consultancy services to review school programme	Per report	NIL	NIL
5	Updating of DT Curriculum Materials	Updating of lesson materials for school from existing materials.	Per set	19,000	Cost is limited to integration of DX's standard Design Thinking Modules & Templates into school's existing materials and does not include other additional content customisation. Subjected to cost variation by percentage of unit price depending on school's requirement and project's complexity.
6	Designing of new DT Curriculum Materials	Includes: • Syllabus • Lesson Plans • Related resources	Per set	19,000	Content will be customised to meet school's unique problem statement with the training framework aligned to DX's Design Thinking training modules. Subjected to cost variation by percentage of unit price depending on school's requirement and project's complexity.
7	Production of Standard Programme Materials	Includes: • Printing of lesson materials such as Worksheets / Posters / Charts / Certificates	Per set	2,850	Per set is defined as default printing of standard training content handouts for 50 participants. Additional copies will be charged according to deviation from default.
8	Internal Manpower Cost for Facilitation – Senior Speaker/ Facilitator	Includes: • Main facilitator for programmes • Main presenter for talks	Per man-hour	528	Per man-hour cost applies to all workshop packages and will be costed according manpower of up to 2 x Speakers/Facilitators per session.
9	Internal Manpower Cost for Facilitation – Junior Speaker/ Facilitator	Includes: • Support roles for programmes	Per man-hour	85	Per man-hour cost applies to all workshop packages and will be costed according manpower of up to 2 x Speakers/Facilitators per session.

# LEARNING BY DESIGN

## RATE CARD & CONTACT INFORMATION



	Description of Services	Specifications	Unit of Measure	Price (S\$)	Remarks
10	External Manpower Cost for Facilitation – Senior Speaker/ Facilitator	Includes: • Main facilitator for programmes • Main presenter for talks	Per man-hour	528	Per man-hour cost applies to all workshop packages and will be costed according manpower of up to 2 x Speakers/Facilitators per session.
11	External Manpower Cost for Facilitation – Junior Speaker/ Facilitator	Includes: • Support roles for programmes	Per man-hour	85	Per man-hour cost applies to all workshop packages and will be costed according manpower of up to 2 x Speakers/Facilitators per session.
12	DT Project Mentoring	DT Mentor for specific projects	Per man-hour	528	Per man-hour cost applies to engagement for additional facilitation hours or consultations of projects beyond standard packages offered.
13	Audit report	External audit of actual expenditure by practitioner	Per report	2,000	Cost of audit is charged according to the prevailing market rate stipulated by practitioners and subjected to cost variation according to audit procedures required per project.
14	Prototyping Materials	Provision of stationery and materials for low-fidelity prototype building	Per set	500	Per set is defined as 1 round of on-site standard prototyping materials provision for 50 participants. Additional materials will be charged according to deviation from default.
15	Proprietary Software	Proprietary Software as part of Contractor’s unique offering of DT	Per Month /Per Year	NIL	NIL
16	Production of Programme Materials (Videos)	Production of Video/ digital media	Per Unit	NIL	NIL
17	External Software necessary for programme	Subscription fees to external software	Per month / Per Year	NIL	NIL
18	Engagement of Industrial Experts	Engagement of Industrial Experts for purpose of programme	Per Hour / Per Session	NIL	NIL

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