Summer School Report and Strategic Action for the Winter Policy Council of the SDS

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This document provides an overview of two **past** System Dynamics Summer School events, some **lessons learned**, an overview of some summer school related **developments**, a proposal for a **strategy** for future summer school events, and a **preview** of the upcoming summer school event.

Past Summer School Events

The first System Dynamics Summer School ahead of the ISDC was organized and hosted by Erik Pruyt at Delft University of Technology, as a 3-day event right before the 2014 ISDC in Delft at the premises of the conference workshops and PhD colloquium. There were four groups/levels/classes (introductory to intermediate, intermediate, supervised project work, and advanced topics) and, in addition, 1-to-1 coaching was offered. In spite of the fact that it was a try-out and the organization and announcement started late, it was a huge success in terms of the number of registrations (a limit had to be imposed) and the learning achieved by the participants. In the end, registrations were cut off at around 80 participants. 82 "summer school students" participated (including volunteers) and 12 professors and practitioners (P&Ps) (Andy F., Christian Erik K., Erik P., Hazir R., Gonenc Y., John M., Kim W., Len M., Navid G., Tushith I., Yaman B., Wil T.) volunteered for 3 days of teaching or were willing to give advanced lectures. The registration fee was kept low, at 300 euro per participant. Registration fees were used to cover all event related costs (coffee++ during the breaks, lunches, welcome dinner, pizza event, additional social event on Saturday), accommodation and food expenses of P&Ps, and the up-front remuneration of one of the external professors. The venue was fully sponsored. The summer school also covered some PhD colloquium expenses (Summer School participants at the PhD colloquium were paid for), and part of the joint conference/summer school related expenses (rent of the faculty bar). The remaining net proceeds were divided equally among all external professors and the organizer (1150 euro per person). For some of the P&Ps and the organizer, it was a rather heavy additional burden, especially in combination with the organization of the ISDC. In 2014, upfront registration related financial transactions consumed much time and ex-post handling was severely delayed.

The second System Dynamics Summer School was organized by Len Malczynski and hosted by Oleg Pavlov, Khalid Saeed and Diane Poirier at WPI in Worchester, MA, as a 3-day event right before the 2015 ISDC in Cambridge, along the lines of the first summer school. There was a smaller team of P&Ps (Andy F., Bob E., Erik P., Karim C., Len M., Mike R.) for a group of about 30 participants. Causes for the smaller group of participants may have been that it was organized rather late and little (internet & social media) publicity was made. Again, lunches, a summer school dinner, and a pizza event were included. It was a great event and it was a huge success in terms of learning of the participants. Diane's local administrative/logistic support was very useful as were the registrations via the SDS.

Lessons Learned

From these two events, it can concluded that the teaching in itself is fine. All participating P&Ps are professionals and can deal with many modelling related issues. However, three days of full time teaching, ahead of the ISDC, was perceived on the one hand as too heavy. Too many different professors on the other hand was perceived as too fragmented by the participants. From this, it could be concluded that for a 3-day summer school, 2-4 professors per track (i.e., basic, intermediate, advanced, or specific thematic tracks) would be ideal.

Although so far, most P&Ps volunteered or were willing to participate in the teaching without upfront financial commitment, we need to ensure their additional costs are covered, and that – especially for those who spend 3 full days at the summer school– there is some compensation for their time invested (opportunity cost, not necessarily a full pay), especially if we want the best in our field to teach at the summer school or if we want people to keep on teaching at successive summer schools. Those who do not want any compensation for their invested time, may donate then donate their share to a summer school fund (future scholarships).

Deciding on the program offered / organization and logistics / administration (especially registrations) / teaching / ex-post handling of certificates could be seen as separate jobs. During the first summer school, too many of these activities were in the hands of one person. Compared to the first SDSS, the process needed to become more professional. Registrations and handling of financial transactions by the home office is a large step forwards. The home office should be compensated for the time spent on summer school administration. The local administrative support at WPI was a second large step forward. A reasonable amount should be budgeted for administrative support of the local summer school organizers. What may still be required is to "professionalize" the organization of the summer school. That is, we may want to make one of the VPs responsible for identifying a local summer school host while or right after identifying/selecting the ISDC hosts as well as a summer school chair (similar to the conference chair) who is responsible for the program offered.

Especially classes focussed on basic skills and classes focussed on intermediate skills were in high demand at the first two summer schools.

Overview of some current developments

All of a sudden, System Dynamics summer schools or summer schools in which System Dynamics is taught start to pop up everywhere, although the label "summer school" is mostly not used. Examples are: the Savanah Schools in Africa, the Planetary Boundaries Spring School in Russia, the late summer school in Italy, the summer schools in South America, etc. This is a good evolution for the expansion of the field. It may require the annual summer school ahead of the ISDC to have a clear identity though.

In view of the discussion on certification and accreditation, we may want to offer at least a "basic core SD" class/track as well as an "intermediate/advanced core SD" class/track and offer the opportunity to take exams and obtain certificates.

Apart from that, we may want to offer an advanced specialty track, for example in line with the theme of the ISDC, with content that cannot be studied elsewhere.

Strategy for future summer school events

Annual: The System Dynamics Summer School ahead of the ISDC is now organized for the third time in a row. If possibly, we should make this an annual (3-day) event ahead of the ISDC.

Strategic: One of the VPs should be made responsible for identifying a local summer school host while or right after identifying/selecting the ISDC hosts as well as a summer school chair (similar to the conference chair) who is responsible for the program offered.

Core and more: At least 1 "basic SD" track, at least 1 "intermediate/advanced SD" track, and possibly one or more specialty tracks chosen by the summer school chair should be offered, and taught by 2-4 P&Ps per track. When moving ahead with certification and/or accreditation, the summer school should offer (some of the) certificates.

Convenient: The annual System Dynamics Summer School venue should preferably be at the same venue or in the proximity of the SD conference site (same town/district/venue). If it is not possible to host it at the conference venue, then we may consider hosting it in a hotel. In the end, we just need 3-4 (big enough) rooms with beamers and a place for coffee breaks.

Well Known: There needs to be at least a sufficient amount of publicity ahead to meet the minimum number of participants -- which is about 15-20 students per class, or 45 students in total. By free publicity, we should be able without any difficulty to attain that minimum number.

Financially sustainable: The System Dynamics Summer School should be financially sustainable, in the sense that it should be a win-win for multiple parties involved. Summer schools should not incur a loss, nor should any of the parties involved (e.g., the SDS). That is, a summer school should be cancelled in case of insufficient participants. Costs incurred should be compensated for. The home office takes care of registrations and handles all financial transactions, for which it needs to be compensated. Additional costs incurred by P&Ps (e.g., accommodation and additional travel costs) should be covered too. If possible, some compensation for teaching/time should also be provided. Moreover, it should be possible to appoint some volunteers who support the summer school organizers in return for free participation, or budget for administrative support. If the summer school formula becomes an annual success story, then we may want to consider institutionalizing a payment of part of the net proceeds to the SDS (like the 25k provision for ISDCs), possibly proportional to the scale of the event. If this is the case, then we should also provide a similar financial incentive/compensation for the partner hosting the event. It should be possible to buffer excess net proceeds to support future summer schools.

Not cannibalizing the ISDC: The System Dynamics Summer School should not cannibalize the ISDC. This has been the case in 2014. We may want to provide incentives to participate in both events or provide disincentives to only participate in the System Dynamics Summer School, for example by raising the price of "Summer School only" registrations.

The 2016 SDSS ahead of the 2016 ISDC at Delft

The third System Dynamics Summer School will again be hosted by Erik Pruyt at Delft University of Technology. Again, it will be a 3-day event right before the 2014 ISDC in Delft at the premises of the conference workshops and PhD colloquium. At the 2016 3-day summer school ahead of the ISDC, there will be at least a "basic core SD" class/track, an standard "intermediate/advanced core SD" class/track, and a specialty track in line with the ISDC on "Black Swans and Black Lies". More information is available on http://conference.systemdynamics.org/summer-school/ .

This year, the registration fee and budget are markedly different – in line with the suggested strategy above. Several budget items are "conditional", and are only included if the expected planning assumptions make it possible to pay for them to be paid for. They will not be paid if the real number of participants is close to the worst case planning assumptions (only 30 participants). Due to the expensive euro-dollar exchange rate, we will charge $450 for those who attend the ISDC, and $650 for those who do not attend the ISDC.

		EXPECTED				WORST CASE				
		participants	Lecturers:	Total:		participants	Lecturers:	Total:		
		80	8	88		30	6	36		
		persons	units pp	price p unit	Total in E	persons	units pp	price p unit	Total in E	
hotel lecturers	euro	8	5	100	€ 4000.0	6	4	100	€ 2400.0	euro fixed
food lecturers	euro	8	3	30	€ 720.0	6	3	30	€ 540.0	euro fixed
hours lecturers	conditional	4	8	125	€ 4000.0					conditional
lunches participants	euro	88	3	9	€ 2376.0	36	3	9	€ 972.0	euro fixed
coffee etc	euro	88	3	2	€ 528.0	36	3	2	€ 216.0	euro fixed
dinner participants	euro	88	1	22.5	€ 1980.0	36	1	20	€ 720.0	euro fixed
pizza dinner partic.	conditional	66	1	5	€ 330.0					conditional
social activity	euro	40	1	20	€ 800.0	36	1	10	€ 360.0	euro fixed
TUD rooms	conditional	1	1	2500	€ 2500.0					conditional
hours organization	euro	1	40	125	€ 5000.0	1	30	125	€ 3750.0	euro fixed
SDS contribution	conditional	1	1	2500	€ 2500.0					conditional
hours SDS home office	dollar	1	40	100	€ 4000.0	1	30	125	€ 3750.0	dollar
contribution PhDcoll	conditional	40	1	10	€ 400.0					conditional
contribution bar, etc	conditional	1	1	750	€ 750.0					conditional
TOTAL					€ 29884.0				€ 12708.0	
total per person					€ 373.550				€ 423.60	
participation fee if also @ ISDC		€ 375	1.16	$435.0	$450.0					
participation fee if not @ ISDC		€ 560	1.16		$650.0					